

RAND

Officer Sabbaticals

*Analysis of Extended
Leave Options*

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PREFACE

The Department of Defense (DoD) is exploring implementation of different personnel management programs as part of its strategic human resource management plan. One program under consideration is the greater use of extended leaves, also known traditionally as sabbaticals. This report provides the findings of our analysis on extended leaves for officers. This project, “An Analysis of Sabbatical Leaves for Military Personnel,” was sponsored by Officer and Enlisted Personnel Management of the Office of the Under Secretary of Defense for Personnel and Readiness.

Extended leaves are not new to the military. For example, in the early days of the Navy, officers were compensated only while at sea; that is, they were not paid on shore while waiting to return to sea—in essence, on extended leave. Robert E. Lee took an extended leave after leaving his pre-Civil War position at West Point to settle his wife’s family estate, what is now the Custis Mansion at Arlington Cemetery. More recently, officers who have risen to the grade of O-10, including chiefs of service as well as the Chairman of the Joint Chiefs of Staff, have had breaks in service—that is, they left and later returned. DoD is interested in how such programs could be designed and whether they are advisable to implement.

This project was initiated to explore the possibility of sabbaticals for officers. Because the private-sector literature maintains that sabbaticals are a subset of the various kinds of extended leave programs, we scoped the analysis to consider various extended leaves and herein use the term *sabbaticals* to refer only to a specific kind of extended leave. The work was a relatively quick-turnaround analysis that was

limited to examining extended leaves for officers only. The work describes different kinds of extended leave programs, evaluates the return on investment likely from different programs, and offers recommendations for specific programs as well as observations about how extended leave programs, more broadly, might be instituted. As such, this work is of potential interest to military personnel managers and policymakers interested in the issue of extended leaves.

This research was conducted for the Office of the Secretary of Defense within the Forces and Resources Policy Center of RAND's National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the unified commands, and the defense agencies.

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BACKGROUND

In recent years, the Department of Defense (DoD) has placed increasing focus on attracting and maintaining military personnel with desirable skills and capabilities and on creating a more flexible personnel system to prepare the military for the future. To achieve these goals, and as part of its developing human resource strategy, DoD is exploring a wide range of personnel management programs. One such program involves the greater use of extended leaves for its military officers.

Common in the civilian workforce, extended leaves may be offered to employees for a number of purposes, such as professional development, self-renewal, addressing family concerns, or even helping a company overcome a financial crisis. In the U.S. military, however, such leaves are far less common. At present, few programs are authorized by law or by DoD's "Leave and Liberty" policy. Specifically, eligible officers are permitted to take education-related leaves for up to two years, during which time they receive only basic pay but no other pay or allowances. Upon returning from leave, officers must "pay back" by serving one month for every two months away. Additionally, the services permit some individuals to rejoin the service after leaving, contingent upon each service's need. Still, for officers seeking a leave of absence for reasons other than educational advancement and who hope to receive some compensation or maintain their benefits during their time away, no full-scale option exists.

DoD thus asked RAND to determine different ways in which more comprehensive extended leave programs could be implemented in the military and to explore the advisability of these implementations.

Our research effort focused on three primary motivations for instituting leave programs:

- *Legal.* We looked at what the services are required to do (and are currently precluded from doing) by law as well as what future legislation may necessitate given recent laws affecting civilian employees (e.g., the Family Medical Leave Act [FMLA] of 1993).
- *Human Resources.* We pursued the issue of whether these programs may be the “right thing to do” in terms of promoting the quality of life of service members and competing with civilian employers who are offering such programs with increasing regularity.
- *Fiscal.* We examined whether such programs may be cost-efficient, either because they result in savings or a return on investment (ROI). That is, extended leave options may help increase retention rates, which can in turn bring the added benefits of greater experience levels as well as cost savings that stem from lower accessions.

TARGETING SPECIFIC EXTENDED LEAVE OPTIONS

To formulate possible extended leave programs for use by the U.S. military, we took the following steps.

First, we examined existing programs in use in various sectors. Specifically, we focused on:

- *U.S. military and U.S. Coast Guard programs.* In addition to the educational leaves, we also looked at the various return-to-service programs currently in place. However, these programs tend to limit participation because they either do not offer pay or benefits or they do not ensure a return to service.
- *Foreign military programs.* Our investigation determined that such programs are not widespread and are generally unlikely

candidates for translation to the U.S. military because of the unique cultural or governmental contexts from which they arose.

- *Programs for nonmilitary U.S. government employees.* We found these programs, which tend to focus on educational opportunities, to be relatively small in scope and eligibility level.
- *Private-sector programs.* These programs range from personal extended leave options as required by FMLA, to academic and nonacademic sabbaticals, to leaves for personal growth purposes, to social services leaves, to voluntary leaves offered by businesses with a temporary surplus of employees or those facing a financial crisis. We found that such programs, which can be paid or unpaid, with or without benefits, offer a broad array of characteristics that merit consideration for possible adaptation for the military.

Next, we identified an array of options for possible military adaptation. In light of our review of existing programs and with an eye to the particular needs and management structure of the U.S. military, we generated a list of program options that should not conflict with military practice and that may provide various benefits based on their use in the civilian workforce. These programs fall into six basic categories:

- *Personal extended leaves*, such as maternity or paternity absences, elder care, or leave to attend to a family crisis.
- *Sabbatical leaves* for the purposes of academic pursuit, such as a research endeavor or independent study.
- *Personal growth leaves* to allow participants to increase their education or gain experience in a nonmilitary job market (e.g., working in a family business for a year).
- *Social service leaves*, or longer leaves with a specific purpose, such as working with nonprofit community organizations.
- *Voluntary leaves to meet service needs*, which can serve as a manpower management tool, allowing the services to reduce numbers for a particular year group when necessary.
- *Expansions for existing programs*, such as the current return-to-service program. Other than the U.S. Coast Guard's temporary

separation option, these programs do not guarantee return. A possible expansion could involve adding a right-to-return or required-to-return element.

Then, we explored the advisability of these programs from the aforementioned legal, human resources, and fiscal perspectives. For instance, from a legal standpoint, we looked at how the military might adopt these programs if the President or Congress determines that it is time to extend certain workforce and workplace practices, such as FMLA, to military personnel. In turn, from a human resources point of view, we looked at the potential for these programs to help keep officers satisfied and motivated, thus potentially improving morale, performance, and retention. Further, we considered whether these leave options would assist the military in its efforts to compete with the private sector.

Finally, we conducted an ROI analysis on representative programs. To evaluate these programs from a fiscal or cost-efficiency point of view, we conducted an illustrative ROI analysis; that is, rather than assessing the ROIs for specific leave options and populations, we determined *the variables that most affect ROI*, thus generating general principles from which to shape programs. Our focus was on four sample programs, two large and two small extended programs, each with varying eligibility, participation, and compensation levels. The four represent variations of sabbatical leaves, social service leaves, personal extended leaves, or leaves for personal growth. For each, we determined associated costs (i.e., compensation, administrative, and human capital costs) and benefits (any resulting increase in retention). Then, we calculated the ROI using military subpopulations that would serve as likely targets. In essence, we asked: What percentage and number of program participants would have to change their mind about leaving the service in order to produce a positive ROI?

RETURN ON INVESTMENT: BALANCING PROGRAM SIZE, DURATION, AND COST

Our ROI analysis demonstrated that any program offering leaves of limited length that change the retention behavior of at least 10 percent of the participants generally has a positive ROI. The purpose of the leave (e.g., social service or personal growth) appears to have

only a minor impact on the cost-efficiency of the program. Instead, the aspects that determine cost-effectiveness are the duration of the leave, the number of participants, the compensation offered, and the likelihood that participants would otherwise have left the service.

All told, reducing program size, duration, or cost improves its ROI. These components must be in balance to achieve the desired effects on retention. For instance, if costs are high, the program should be smaller and offer shorter leaves. With such programs, however, personnel managers must weigh whether the retention needed for a favorable ROI can be achieved from a small group of participants taking a short leave. As might be expected, large, high-cost programs are not likely to attain enough retention to make them advisable. Still, if large programs offer only short leaves and generate minimal costs (e.g., participants receive only basic pay or benefits), they may be feasible. Ultimately, the programs with the more favorable ROI are some combination of small, short, and low cost.

In terms of participants, programs that target subpopulations in which there is the greatest probability of positively affecting retention behavior are more efficient. A prime consideration is also *how much* additional service is achieved from those who stay in service because of these programs. Gaining two additional years is not as favorable to ROI as gaining four. In turn, we determined that some populations are not advisable to target. For instance, if aimed at officers with 15–19 years of service, the costs of the program are extremely high given the few additional man-years that can be gained. Such older populations also include few potential “leavers” compared with those who would be included in broad-based programs. Likewise, some combinations of programs and populations are not plausible. Either there are few leavers who might remain in the service because of the program or a very high percentage of leavers would need to stay to achieve a favorable ROI.

In the end, when ROI is the primary criterion, any proposed program should be analyzed on its own merits, taking into account target population, size, duration, cost, and requirements.

RECOMMENDATIONS

This ROI analysis, combined with the various legal and human resources motivations, leads us to a set of specific recommendations.

Implement a Flexible Range of Personal Extended Leave Programs. Offering an array of options to accommodate various officer needs would demonstrate an understanding of officers' personal commitments and responsibilities, much as FMLA functions in the civilian workplace. A full range also allows a desirable flexibility for both officers and military personnel. Table S.1 shows specific personal extended leave options that could be made available and indicates their differences with and similarities to existing programs. Once an officer demonstrates proof of need, his or her eligibility and compensation or benefits should be based on merit and professional performance. The issue of whether the leave should be paid or unpaid could be contingent on whether the officer is required to return (after a paid leave) or is encouraged to do so (after an unpaid leave). As the table also shows, the legal vehicles for implementing these programs vary. For instance, compensating officers with basic pay or benefits during a personal (i.e., noneducational) leave would require changes to existing law.

Consider More-Flexible Educational Sabbaticals. Sabbaticals could be used as a substitute for the current intermediate program of officer education. That is, in lieu of formal resident attendance at a particular school, officers could be granted time to pursue educational opportunities for their career development. Such an option would allow officers more freedom to study their areas of interest and would be of value to their service. These sabbaticals could prove increasingly useful if current schooling patterns change. For instance, if intermediate or senior service schools shift from yearlong residency to more-frequent schooling periods of three months or less, the military could offer sabbaticals of an additional three months (without a geographic relocation) for officers to complete certain educational requirements or pursue other activities.

Evaluate Personal Growth or Sabbatical Programs for Specific Cohorts. Our analysis suggests the benefits of evaluating programs for specific subpopulations. Such focused analysis could address

Table S.1
Recommended Personal Extended Leave Programs and Existing Options

Cause for Departure	Occupation or Performance Level	Compensation and/or Benefits	Option for Return to Service	Vehicle
Any	Any occupation; meets minimum performance requirements	None	Allowed ^a	Service policy
Intense personal need (1)	Critical occupation with minimum performance requirements or any occupation and superior performer	None	Guaranteed within fixed number of years	Service policy (as revised)
Intense personal need (2)	Any occupation; meets minimum performance requirements	Benefits	Required	Secretarial authority (as revised)
Intense personal need (3)	Critical occupation with minimum performance requirements or any occupation and superior performer	Basic pay and benefits	Required	Secretarial authority (as revised)
Education	Any occupation; meets minimum performance requirements	Basic pay and benefits	Required ^b	Secretarial authority

^aOption already exists but is currently contingent on service needs.

^bOption already exists.

with more precision the effects of various programs on population size, continuation rates, and specific retention problems. In turn, resultant findings could help community managers steer programs toward the officers most likely to leave (e.g., junior officers).

Improve Existing Return-to-Service Programs. The current return-to-service programs are designed to bring back former officers when deemed in the best interest of the services. In practice, however, such lateral entries are often restricted or even precluded regardless of service needs. As such, we suggest that these programs should be revisited and prioritized in the greater context of service priorities and total accession plans.

Guide Implementation via Several Key Principles. First, these programs should be based more on merit than on need alone. Second, they should not be gender based but restricted to certain occupations or communities. Third, for longer programs, the “clock” for participating officers should be stopped while on leave, so officers remain competitive for promotion. Fourth, with the exception of programs to accommodate dire personal crises, participants should be between assignments and not in negotiation for the assignment process. Fifth, community managers should have input regarding the “health” of their community when implementing any large-scale program. And finally, participating officers should have met various requirements in terms of evaluations, selection status, and proximity to retirement.

Continue to Evaluate Potential New Programs. To remain competitive with the private sector, the services should monitor new and promising options on an ongoing basis.

CONCLUDING OBSERVATIONS

Regardless of which programs are instituted, leadership support will be critical to their success. Such support will help ensure not only that officers are offered programs for which they are eligible but also that they are not unduly disadvantaged for making use of them. Indeed, internal perceptions of these programs and their participants are important and should be taken into consideration when formulating their parameters. For example, leaves based on merit or offered as a reward for certain service or assignments appear most likely to meet internal acceptance.

Ultimately, extended leaves carry the promise of greatly enhanced flexibility for individual service members, and also for the military more largely, because these programs can be adjusted, replaced, or eliminated based on different service needs, work-life patterns, private-sector trends, legislative developments, or shifting national priorities. Moreover, aside from the potential for concrete positive impacts (e.g., on retention rates), implementing these programs may help reinforce the military’s reputation as a competitive, attentive, and conscientious employer.

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ABBREVIATIONS

CIA	Central Intelligence Agency
DoD	Department of Defense
FMLA	Family Medical Leave Act
PDV	present discounted value
RMC	regular military compensation
ROI	return on investment
SES	Senior Executive Service
SHR	Society of Human Resource Management
USA	United States Army
USAF	United States Air Force
U.S.C.	United States Code
USCG	United States Coast Guard
USMC	United States Marine Corps
USN	United States Navy
YOS	years of service

The research to examine the feasibility and advisability of extended leaves for officers was initiated in support of the development of the current Department of Defense (DoD) Military Personnel Human Resource Strategy. The mission of this strategic plan is “to provide Human Resource policies, programs, and legislation that ensure the right number of military personnel have the requisite skills, abilities, and motivation to effectively and efficiently execute assigned missions.” The strategy envisions an investigation and evaluation of a broad spectrum of monetary and nonmonetary retention incentives, one of which is the use of extended leaves, or sabbatical-type programs. This particular research and analysis effort determines different ways that extended leaves could be implemented within DoD for military officers and explores the advisability of these implementations.

We suggest herein that there are generally three reasons for change or inclusion of new programs (which form the basis for this analysis). First, law may require such change; we discuss below the programs mandated by U.S. employment law, Title 10, or other governmental directives. Second, it appears to be the “right thing to do” for people-oriented reasons or because other employers are increasingly offering such programs. In light of these newer programs in the public and private sector, DoD must remain a competitive employer. Third, such programs may be cost-efficient, either because they result in savings or because they offer a return on investment (ROI). Such return is generally expressed as increased retention, which produces benefits of greater experience and lower accessions, which can offset costs.

Our research pursued extended leaves in the context of these motivations. We discuss what the services are required to do (and are currently precluded from doing) by law. We also address the more people-oriented motivation, suggesting that some extended leave programs might be the right thing to do for military officers. This last motivation is supported by the DoD Social Compact, which recognizes the need for creative ways to support and satisfy its service members.¹ Finally, we address the pragmatic, organizational motivation that assumes extended leaves can serve as a retention tool to increase experience and productivity.

In various reviews of officer management policy, the question has emerged as to whether more-liberal use of leaves of absence could improve the retention environment.² Policy choices could include leaves of absence for other-than-educational purposes, leaves of varying lengths, paid and unpaid alternatives, and other requirements for service during such leaves, including service with the reserves. However, to support the use of sabbatical-type programs as part of the new DoD human resource strategy, it is necessary to develop policies and plans for DoD military personnel that can be evaluated to determine likely outcomes. This research responds to that need by considering existing programs in civilian organizations, other government organizations, and foreign militaries. This work defines and evaluates possible leave programs for military officers and discusses the advisability of such programs.

¹The Social Compact is DoD's public acknowledgment that the department relies on a volunteer military in a changing context. Today, more young people are going to college, competition from the private sector is increasing, and lifestyle values are changing. People want more time to themselves and their families, and more time at home. In the private sector, employers have become increasingly family friendly by responding to shifting values among employees and their families. Thus, wise employers are selectively adopting new practices to strengthen their relationships with the workers they want to keep. The Social Compact recognizes that in both the private and public sector, investment in these approaches makes sense for building morale, efficiency, continuity, and bottom-line strength. (U.S. Department of Defense, 2002.)

²For example, the DoD Morale and Quality of Life Review panel suggested management approaches that more effectively match department and individual needs to respond to changing economic forces and the desires and expectations of today's workforce. An internal policy review conducted by the Deputy Assistant Secretary of Defense for Military Personnel and Policy recommended expanded authority to grant sabbaticals as a means to increase flexibility for the services.

SCOPE OF THE RESEARCH

In the context of this research, it soon became apparent that the semantics of “sabbaticals” and other extended leave programs are elusive. *Extended leaves* can be considered a paid or unpaid period of absence provided by employers to their workers for multiple purposes, such as professional development, self-renewal, addressing family concerns, social service, or helping overcome business circumstances, such as layoffs or downsizing. *Sabbaticals* are generally a subset of extended leave programs. Some organizations offer “sabbatical” leave that is little different from vacation time, while other organizations offer a variety of extended leave programs but do not call them sabbaticals. As one representative of a Fortune 500 company told us, “Our program is not necessarily a sabbatical. It allowed employees to take up to one year off with pay to work on a specific community project.”³ In general, we observed a variety of extended leave programs, some of which are labeled sabbaticals. Thus within this research, we explored multiple kinds of extended leave programs, including but not restricted to “sabbaticals.”

ORGANIZATION OF THIS REPORT

Chapter Two of the report introduces different kinds of existing extended leave programs. Chapter Three describes programs that are possible, albeit not necessarily advisable, for the military. Chapter Four evaluates the advisability of different kinds of programs. We conclude in Chapter Five with recommendations, observations, and guidelines for implementation. Appendix A provides greater details about the assumptions inherent in the ROI analysis, and Appendix B explains the human capital valuation we used in this analysis.

³Email communication with a Xerox representative about a program currently in hiatus (July 18, 2002).

THE U.S. MILITARY OFFERS FEW EXTENDED LEAVE PROGRAMS

Military sabbatical-type programs are authorized in law (Section 708, 10 U.S.C.) and in policy (DoD Directive 1327.5, “Leave and Liberty”) as educational leaves of absence for enlisted personnel in a second or subsequent enlistment and for officers who are beyond the initial period of obligated service. In general, the absences can be for up to two years. During this time, members receive basic pay and benefits but no other pay or allowances and are required to pay back two months in service for every one month of education time away. The current legislation limits the use of this extended leave to educational purposes, and no current vehicle exists through which a military individual can take a noneducational extended leave and receive compensation or maintain benefits, other than for medical reasons (such as the convalescence leave following surgery or the birth of a child).

Individuals can, however, depart temporarily from the service for an unpaid leave of absence. For example, the U.S. Coast Guard has implemented a temporary separation program, occasionally referred to as its “sabbatic” program, which permits active-duty personnel the opportunity to return to the Coast Guard within two years of their date of separation. This is similar to the DoD services’ return-to-service programs, but the services do not guarantee the opportunity to return. Instead, they consider each case individually, according to the needs of each service. In some instances, despite a services’ need

for individuals of that occupation or background, there are barriers that preclude individuals from returning to the service after a period of separation.

FOREIGN MILITARY PROGRAMS DO NOT TRANSLATE WELL

When the subject of implementing new extended leaves for U.S. service members arises, the U.S. military's leave practices are often compared with policies of foreign militaries. Internationally, the most common type of extended leave appears to be parental (maternity and paternity). We did not find widespread practice of other extended or sabbatical-type leaves among foreign militaries. Further, comparisons of foreign parental leave policies are of limited value because the leave policies result from cultural, social, and governmental contexts that are often quite different from what is found in the United States. For example, many countries offer extended maternity leave funded by a central tax-supported coffer, such as social security funds. In general, we found that militaries typically reflect their civilian maternity or parental leave policy counterparts. For example, Australian military mothers receive 12 weeks of paid leave and up to 40 weeks of unpaid leave, consistent with the legal requirement for private-sector employers to provide one year of maternity leave (generally unpaid).

OTHER U.S. GOVERNMENT EXTENDED LEAVE PROGRAMS

Some U.S. government organizations provide extended leave for their personnel. The Central Intelligence Agency (CIA) permits senior civil servants to teach for one to two years at American colleges and universities. The CIA provides full pay and benefits as well as several thousand dollars for travel and moving costs. The agency does not call this program a "sabbatical," but this "Officers in Residence" program does appear to be similar to other sabbatical programs examined. Approximately 10–12 senior CIA personnel are chosen to participate each year from the 20 or so applications submitted (Kramer, 2001, p. 94).

Senior Executive Service (SES) career appointees are also eligible for a sabbatical of up to 11 months after their seventh year of service. Title 5 states that such sabbaticals cannot be taken more than once

in any 10-year period. The agency head grants the sabbatical; the individual receives pay and normal benefits and may receive travel reimbursement; and the individual agrees to two years of additional service after completion of the sabbatical. The intent of the program is to permit study or uncompensated work experience that will contribute to the appointee's development and effectiveness. The program is perceived to be a benefit or developmental program and not a leave program. For example, Army regulations discuss sabbaticals as part of development of SES members at the same level as formal training courses, developmental assignments, details, and self-development activities and provide a nomination form. Few of the SES employees eligible for this program take advantage of the extended leave program.

PRIVATE-SECTOR PROGRAMS

The private sector offers a variety of extended leave programs, which can be roughly categorized into the five types discussed below and shown in Table 2.1.

Personal Extended Leaves

Some employers provide paid personal extended leave. Employers with more than 50 employees are required by the Family Medical Leave Act [FMLA] of 1993 (Public Law 103-3) to permit their employees with one year of tenure up to 12 weeks of unpaid leave during any 12-month period for one or more of the following reasons: care for newborn child; care of a child with employee for adoption or foster care; care for sick spouse, child, or parent of the employee; or recovery from a serious health condition that makes an employee unable to perform the functions of his or her position. Employees returning from FMLA leave are entitled to the position they held prior to their departure or to a position of equivalent benefits, pay, and other terms and conditions of employment. Employers must continue to provide group health coverage for those on FMLA leave. In addition, the use of FMLA shall not result in an employee losing any employment benefit accrued prior to his or her FMLA leave (Public Law 103-3).

Table 2.1
Private-Sector Programs

Type of Leave	Length	Eligibility	Compensation	Organization's Motivation
Personal extended ^a	Weeks to months	Appropriate need	Yes or no, but benefits provided	Expected/mandated by law
Sabbatical	Weeks to months	Tenure (performance implied)	Yes	Recruit, refresh, reward, professional development
Social service	Months	Tenure (performance implied)	Usually	Recruit, refresh, reward, professional development
Personal growth	Months to years	Individual basis	Usually not, often benefits provided	Refresh, enrich, small-scale retention
Voluntary to meet business needs	Months to years	Selected business areas	No, but benefits/incentives provided	Reduce payroll, maintain human capital

^aFor example, parental, elder care, or health.

Sabbatical Leaves

There are two different kinds of leaves that are frequently referred to as sabbaticals. Most colleges and universities provide faculty members six months to a year off, with either full or half salary. These programs originated in American universities during the late 19th century: In 1880, Harvard adopted paid sabbaticals for its staff, and 300 of the existing 575 colleges and universities had followed suit by 1932 (Best, 1980). These breaks were designed, and continue today, to permit professors the time to research, write, and generally advance their expertise, thus increasing their value to their academic institution.

Other organizations offer a shorter term of paid sabbatical leave (generally six to eight weeks) for their employees. The 1990s, a productive and hard-charging period for businesses and their employees, saw as many as one-third of companies offering sabbaticals. More recently, one survey found only 14 percent of all companies offer paid sabbaticals, and about 38 percent of all companies offer unpaid sabbatical (SHR, 2002). These figures are broken out by company size in Table 2.2. Another study found the number of companies offering sabbaticals decreased from 34 percent in 1995 to 21 percent in 1999.¹ The difference in these findings is a result of both the reference year and the definition. The latter study generally included extended leaves with at least partial pay.

Many of these programs currently or previously in existence were designed to be relatively short term, such as six to eight weeks, and to serve as opportunities to recharge and reenergize hard-working employees. Other programs were six-month or yearlong programs. They varied as to whether they offered full or part salary. In some instances, programs offered full salary for a limited period, such as six weeks, and employees could stretch their leave to have twice that time at half pay. Many of these programs were designed to be tacked onto vacation time, in effect lengthening total leave time.

These programs generally had implementation rules that acknowledge and express appreciation for loyal long-term (and sometimes full-time-only) service. For example, McDonald's, Wells Fargo, and American Express designed their programs for employees with 10 or more years of service (YOS). Some of the programs were merit-based and highly competitive, but all generally assumed that poor performers and those in the middle of a major work project were not eligible.

Social Service Leaves

Social service leaves are extended leaves with a focused purpose. These leaves typically provide full salary and benefits while an employee works for a nonprofit community outreach organization,

¹Colvin (2000). In this article, sabbaticals are defined as "extended time off, usually at partial pay."

Table 2.2
Personal Extended Leave Benefits Offered, by Size of Company

	Medium Company (100–499 employees)	Large Company (500+ employees)
Extended Leave	Companies That Offer Such a Program (%)	
Sabbatical program (unpaid)	15	23
Sabbatical program (paid)	2	12
Paid short-term disability	83	87
Parental leave beyond FMLA	17	27
Paid maternity (other than what is covered by short-term disability)	16	21
Paid paternity	13	11
Elder care beyond FMLA	10	22
Time bank of vacation	14	13
Time bank of sick	11	12
Vacation purchase plan	2	12

SOURCE: SHR, 2002.

such as Habitat for Humanity or UNICEF (United Nations Children's Fund).

Personal Growth Leaves

Personal growth leaves vary in their implementation but are generally opportunities for employees to broaden their own personal experiences, capabilities, or education while maintaining a relationship with their employer. These are typically activated by individual application and considered on a case-by-case basis. Most personal growth leaves are unpaid but may include extended benefits or other support, such as a personal computer provided to the employee while he or she attends graduate school.

Voluntary Leaves to Meet Business Needs

Voluntary leaves to meet business needs are the final types of leaves. This is a different type of program than the preceding four discussed.

While the other programs are designed to reward, refresh, or accommodate the personal needs of valued employees, these leaves are designed to protect the organization during difficult times. These are company-initiated programs that provide incentives (such as tuition benefits) for selected employees who remove themselves from the payroll but maintain a relationship with the employer. These were first proposed by Persoff following World War II as a means to disperse the burden of unemployment by providing rotating extended leaves among the workforce (Persoff, 1945). Since then, other organizations, such as Hallmark, DuPont, Northwest Airlines, and AT&T, have adopted similar programs to address their “employee excess” (Axel, 1992, p. 29).

Availability of Leaves and Benefits Desired While on Leave

The percentage of companies that offer various kinds of leave is indicated in Table 2.2. We also note the kind of benefits that employees are most likely to desire while on leave in Table 2.3.

In summary, DoD does offer military officers the opportunity to take an educational sabbatical, but there is not widespread use of this program. All the services offer return-to-service programs for individuals who wish to return after they leave the service, but only the Coast Guard guarantees the opportunity to return. Foreign militaries offer extended leaves—generally as parental leaves—but these leaves are more consistent with each country’s civilian leave expectations and standards than with those of other militaries. The best variety of

Table 2.3
Benefits Desired by Employees While on Extended Leave

Benefit	Percentage
Health insurance	85
Life insurance	28
Defined contribution retirement plan	27
Disability Insurance	18

SOURCE: SHR, 2002.

extended leave programs are found within civilian companies and organizations. We offered a brief discussion of these different kinds of leaves in this chapter to illustrate the different purposes, administration, and perceived costs and benefits of various extended leave programs.

**POSSIBLE EXTENDED LEAVE PROGRAMS FOR
THE U.S. MILITARY**

Given the variety of programs offered in the private sector, there is a broad range of programs that could be offered to military officers as well. In this chapter, we describe some of these possibilities and explore why they might appeal to specific subsets of officer populations. The intent is to introduce programs that could feasibly fit with officer management structures and that are consistent with programs offered in the private sector. This is not intended to be an exhaustive list. We consider feasible programs those that fit with existing public- or private-sector management practices and also those that fit with officer personnel management. Feasibility does not imply that there are positive rewards for implementing such a program, nor does it imply that such a program would be either easily installed or in the best interest of the service. Instead, feasibility indicates that, if directed to do so, the services could implement such a program without precluding their ability to manage officers. All the programs designed and discussed in this chapter are feasible. In other words, we define a spectrum of illustrative programs that are broadly consistent with civilian practice and not in obvious conflict with the way the military works. This chapter explores only what might be done, while the following chapter explores the advisability of various programs to determine what should be considered further.

There are a variety of programs worth consideration. An illustrative set of programs is summarized in Table 3.1 and is modeled after the civilian leave options explored in the previous chapter. Many variations of these programs are possible and are discussed below in

Table 3.1
Illustrative Possible Programs

Type of Leave	Length	Eligibility	Compensation
Personal extended ^a	6 weeks to 6 months	Appropriate need	Full or partial
Sabbatical	6 weeks to 6 months	Tenure, tenure/merit, or reward	Full
Social service	6 months or 1 year	Tenure and merit	Full or benefits
Personal growth	6 months to 1 year	Individual basis	Benefits
Voluntary to meet business needs	As necessary	Selected business areas	Benefits/incentives

^aFor example, maternity, elder care, or family crisis.

greater detail. Generally, we group our program designs into the five categories discussed in Chapter Two.

PERSONAL EXTENDED LEAVES

A range of personal extended leaves could be implemented for military personnel, as indicated in Table 3.2. The first two reflect different kinds of maternity leave. Currently, military personnel do not receive maternity or paternity leave; female military personnel receive six weeks of medical convalescence leave following the birth of their child. Thus, the first of the two maternity leave programs in Table 3.2 would provide new mothers with an additional six weeks of fully compensated leave for a total of 12 weeks leave. This leave duration would be consistent with civilian research that found 78–85 percent of working mothers return to work by 12 weeks after childbirth (McGovern et al., 2000; Klerman and Leibowitz, 1994). Twelve weeks is also consistent with FMLA standards, although FMLA guarantees only an *unpaid* leave of that length. The second maternity leave program posited would permit new mothers to extend their leave to 20 weeks, although some of that time may include only partial compensation or benefits. The size of these leave programs are considered relatively small, and both the size and the cost (in man-years) can be calculated based on the percentage of the service that is female and an assumed pregnancy rate. For example, even if 10 percent of all female officers (approximately 32,200) have children in any given year and are provided with an additional six weeks of paid

leave, then the cost to the system is equivalent to one-thousandth of the total man-years. This program would most likely appeal to female officers with less than 20 YOS.

Other kinds of personal extended leaves are also possible. We considered (up to) six months of elder care leaves for personnel to accommodate the needs of their aging parents and a general “family crisis” leave for six months. These programs are envisioned to be relatively small, meaning less than 10 percent of any cohort; could include full compensation and benefits; and are most likely to appeal to individuals who are retirement eligible or who soon will be, given estimated ages of the service members and their parents.

These personal extended leave options are designed only to address the personal needs of the individual and do not have other intrinsic value. They do not, for example, increase the human capital; if anything, one might assume a decrease in human capital would occur while a service member addresses personal needs.¹

Again, at this stage of our analysis, we are only positing potential feasible programs. The advisability of any given program, as well as our recommendations for programs to implement, will follow in the next chapter.

Table 3.2
Possible Personal Extended Leave Programs

Type of Leave	Length	Eligibility	Magnitude	Compensation
Maternity (1)	12 weeks (6 weeks convalescence + 6 additional weeks)	New mothers	Small	Full
Maternity (2)	20 weeks (6 weeks convalescence + 14 additional weeks)	New mothers	Small	Full or partial
Elder care	Up to 6 months	Need-based	Small	Full
Family crisis	6 months	Need-based	Small	Full

¹One might argue that by participating in an extended leave program that addresses certain personal needs, an individual becomes a more caring, sensitive person in a way that could increase human capital. Nonetheless, it is not clear that this increase in human capital has market value to a military employer, and therefore we assume no change in human capital.

SABBATICAL LEAVES

We reviewed four possible kinds of sabbatical leave programs that could be offered to military officers. These programs are shown in Table 3.3. Three of the programs are relatively short (six weeks), consistent with the private-sector model of refresh programs for employees. These first three vary by eligibility requirements and the magnitude of the programs. The first program is relatively small (9 percent of the eligible cohort) with a minimum tenure but has a competitive merit basis for award. The second program is small to medium (9–20 percent of the eligible cohort), awarded for accepting less-attractive assignments. The third six-week program is large (as much as 50 percent of the eligible cohort), based only on a tenure requirement. The fourth sabbatical leave considered herein is a six-month academic sabbatical, during which the officer would be required to increase his or her human capital through independent study or academic pursuit. These could be targeted, and might appeal, to many different year groups of officers.

Table 3.3
Possible Sabbatical Leave Programs

Type of Leave	Length	Eligibility	Magnitude	Compensation
Traditional sabbatical (1)	6 weeks	Tenure and merit	Small (9% of those eligible)	Full
Traditional sabbatical (2)	6 weeks	Reward	Small–medium (9–20% of those eligible)	Full
Traditional sabbatical (3)	6 weeks	Tenure	Large (50% of those eligible)	Full
Traditional sabbatical (academic model)	6 months	Tenure	Large (50% of those eligible)	Full

SOCIAL SERVICE LEAVES

Social service leaves are longer leaves, with a specific purpose; employees are expected to devote the time to working with nonprofit community organizations. Xerox has offered such a program (one year) to its employees who have more than three years of tenure. Xerox excluded political, religious, or sectarian organizations from its

program but noted that some of the projects undertaken by their employees include “helping newly-released prisoners find jobs, building a model classroom for retarded children, counseling drug addicts, training women in skills for nontraditional jobs, helping create adequate housing for the homeless, teaching basic living skills to handicapped people, providing legal aid to the poor.”²

Wells Fargo has offered a similar six-month program for employees who wish to volunteer their time to a nonprofit organization with which the employee has had a continuing relationship (Axel, 1992, p. 24).

Social service leaves can potentially increase human capital if the skills learned are unlike what an individual normally does but are considered useful to the employer. In general, however, these programs are often considered public relations opportunities and are thus sometimes managed by the public affairs or community affairs units.

If the military adopted such programs as shown in Table 3.4, the selection of the individual would be very important given that they would be representing the military to a civilian community organization and potentially to future military recruits. These programs would be most appropriate for officers who have completed their minimum service requirement but could also appeal to officers from different year groups and career stages.

Table 3.4
Possible Social Service Leave Programs

Type of Leave	Length	Eligibility	Magnitude	Compensation
Social service (1)	6 months	Tenure and merit	Small (9% of those eligible)	Full
Social service (2)	1 year	Tenure and merit	Small (9% of those eligible)	Full
Social service (3)	1 year	Tenure and merit	Medium (25% of those eligible)	Benefits

²Excerpt from a brochure describing the Xerox social service leave, in Axel (1992).

PERSONAL GROWTH LEAVES

Individuals might use a leave for personal growth to increase their education or gain experience in a nonmilitary job market (e.g., work in a family business for a year). These leaves would be granted on an individual basis and are designed for opportunities that would increase an individual's human capital. This kind of leave could appeal to officers at many different career stages, based on the reason for their leave. This leave would be available only to officers who have satisfied their minimum service requirement and who are judged of sufficient merit.

We have designed three different kinds of leave for personal growth, as shown in Table 3.5. They are all one year in duration, and all provide benefits only to the service member. Each of these programs would be negotiated on a case-by-case basis. They differ only in the size of the programs, from a small program to a program as large as 50 percent of an eligible cohort.

Based on the individual intentions for this program, participating personnel might increase their personal capital. Such a program might also prompt the retention of individuals who would otherwise leave the service. To the extent that highly performing individuals participated in this program and then decided to remain in the military, this program could have positive benefits for the services. However, there are management issues that need to be resolved. The most important of these pertains to an individual's competitiveness when he or she returns to the service. It would likely be advisable for an individual's "clock" to be stopped while they participated in the

Table 3.5
Possible Personal Growth Leave Programs

Type of Leave	Length	Eligibility	Magnitude	Compensation
Personal growth (1)	1 year	Individual basis; merit	Small (9% of those eligible)	Benefits
Personal growth (2)	1 year	Individual basis; merit	Medium (25% of those eligible)	Benefits
Personal growth (3)	1 year	Individual basis; merit	Large (50% of those eligible)	Benefits

program; i.e., they would resume active-duty service with the year group following their original cohort year group. Such a change would prevent an individual from being disadvantaged because of time away from the service.

LEAVES TO MEET SERVICE NEEDS

Leaves to meet service needs could be a tool for manpower management that would enable the services to smooth excess year groups by removing individuals from the service profile and reentering them in a later year. To the extent that the service members enjoyed particular incentives, such as tuition assistance or separation payments, this program could be similar to other programs (Veterans Administration benefits or Selective Early Retirement Board programs). The program, in its most simple implementation, would be redundant with the current system of reserve commitment upon exit from active duty. In more-complicated implementations, such as where individuals were offered continuing cash payments or tuition assistance, it could be very difficult and costly to manage. Thus, we have chosen not to pursue examples of this kind of management program.

EXPAND EXISTING PROGRAMS?

We also raise the issue of expanding the current return-to-service programs of each of the services. The U.S. Coast Guard program, which is frequently referred to as a sabbatical, is actually a return-to-service program whereby individuals are guaranteed the opportunity to return within two years of their separation. The other services currently have return-to-service vehicles in place but do not offer guaranteed return to the individual; instead, they accept individuals for return when in the best interest of the service. Further, some services have policies and practices that make it very difficult to accept individual returns, even when they are judged in the best interest of the service. Thus, variation on the current return-to-service programs might include a right-to-return program similar to that of the Coast Guard, a required-to-return program that continues individuals' benefits while they are out of uniform, as well as a no-guarantee system that prioritizes the needs of the service but removes some of the current obstacles to returns when judged in the best interest of the

service. The benefit of expanding these programs is that they might, absent other personal extended leave programs, best accommodate individual needs.

Having established a sampling of possible programs, the next chapter evaluates the advisability of these programs.

We discussed possible programs in the previous chapter. This chapter addresses advisability, or whether specific programs should be implemented.¹ We strive to establish a rationale for one or more of the programs. Part of that rationale is efficiency—i.e., a business case—the program either reduces costs or demonstrates a positive return where investment is needed. There are, however, two other possible rationales: legal and pragmatic.

EFFICIENCY RATIONALE

Certain programs could be designed to be advisable from an efficiency rationale if they are cost neutral, demonstrate a savings, or, if investment is needed, demonstrate a positive ROI.

Programs can be designed to be cost neutral and have savings if they are substitutes for existing, more costly programs. Required service programs can be converted into programs where individuals have more freedom to do the things that interest them. This is not unlike the sabbatical program for career SES in that it is considered a developmental substitute for formal training or education programs. One example would be to allow officers to take social service leaves in lieu of attending intermediate service schooling. There are some liabili-

¹The assumptions inherent in this analysis are discussed in Appendix A. We are not including in our analysis currently existing service programs that deal with education, training, etc. Presumably, the business case exists already for such programs because there may be a need for an officer with a graduate degree of a certain type, in which case the service would “assign” the officer to graduate school to get it.

ties both to the service (less gain in service-unique human capital) and to the officer (potentially less competitive than other officers), but the program is reasonably cost neutral with possible small savings if permanent change of station costs are not incurred.² Another example is for a large-scale program combined with changes to officer education that have been suggested elsewhere. The entire program of intermediate officer education could be replaced by a three-month temporary duty and return, followed by a three-month sabbatical. In the latter phase, the officer might complete certain educational requirements or pursue other activities. Individuals would qualify as they do now through some combination of tenure and merit (board selection). Alternatively, all individuals who meet tenure standards (e.g., 10 YOS) could participate. Such a program would be less costly than the current 9–12 month resident intermediate school, but the savings would not be as great as only allowing the three-month temporary duty and return. Questions have been raised about how to complete needed education if the existing paradigm for it changes; a sabbatical program could be part of the answer.

Without designing extended leave programs to be less costly substitutes for existing programs, the rationale for such programs on the basis of efficiency must include program benefits, such as increased retention or increases in human capital.³ By increased retention, we mean that an officer changes behavior—that is, an officer who would have separated or retired now stays for one or more additional years as a result of the extended leave program. The increased retention could be required (for example, a two-year payback for participation) and thus made certain or could simply occur because an impediment to staying (e.g., a family need) was removed. We analyze advisability of extended leaves from an ROI perspective later in this chapter.

²See Appendix B for a more complete discussion of human capital.

³As used by the U.S. General Accounting Office, human capital implies that people are assets whose value can be enhanced through investment. As the value of people increases, so does the performance capacity of the organization, and therefore its value to stakeholders. The human capital valuation is discussed in more detail in Appendix B.

LEGAL RATIONALE

The legal rationale is straightforward. Programs are advisable for legal reasons if a U.S. code, a presidential executive order, or an appropriate departmental directive oversees a program. This is the case with the existing educational leave program that was mandated by Congress in 1984 as part of the Montgomery GI Bill. Provisions of labor and workplace legislation do not necessarily apply to the military workforce unless Congress or an executive order extends the provisions to the military. So, for example, FMLA and certain retirement provisions (e.g., ERISA [Employee Retirement Income Security Act]) do not apply to the military. The legal rationale for advisability is simply that the President or Congress might determine that it is time to extend certain U.S. workforce and workplace practices to the military.

PRAGMATIC RATIONALE: THE “RIGHT THING TO DO”

This rationale has two manifestations. The first deals with individual officers and the second with the organization’s need to remain a competitive employer.

One part of the “right thing to do” rationale is from the perspective of the individual officer who has a particular need. Without being specific about the need, we put the program in the personal extended leave category because there is not likely to be a gain in human capital from it. Nor will we make the argument that the officer will leave service if unable to take a personal extended leave, so we cannot demonstrate an ROI from changed retention behavior. In essence, the argument is made on soft (nondollar) organizational costs. High-performing individuals have more positive effects on organizations than do others. Keeping such officers satisfied and motivated is important. Programs that allow for personal extended leaves should be targeted to the best-performing officers. This is atypical of how such programs are commonly designed. More likely, the decision is based on the greatest need, and the goal is to seek equity (or even equality) of treatment for those individuals with similar needs. We are suggesting instead that need (beyond a minimum threshold) and equity should not be considerations. The decisionmaker should look at the applicant’s service record (past

performance and future potential) and balance it with the current immediate needs for the individual. A program of this type could be implemented by modifying Section 780 of Title 10 to allow such personal extended leaves for other-than-educational reasons. Alternatively, a separate section could grant the authority.

The other part of the right-thing-to-do rationale is that the services need to remain a competitive employer. Extended leave programs exist but are currently not widespread in the private sector. Their use has gone up and down with the health of the economy. However, more commentators are outlining their efficacy in certain situations, and those who write about generational changes are highlighting the evolving views of younger people who may come to expect temporary separations from work. At some future point, providing these programs might become a cost of doing business much as other personnel programs have. For example, such commonly accepted practices as providing tools, training, employee assistance programs, vacation and sick days, and retirement payments are reasonably recent developments in the American working life. Thus, if extended leave programs become prevalent in the private sector, the efficiency of these program would becomes less of an issue for the military—that is, they may need to be offered regardless of cost savings. For example, parental leave, either maternity or paternity, could be evaluated from either an individual need category or from a competitive employer perspective. The available research on maternity leave explores the length of leaves that new parents took and the likelihood that they would return to work.⁴ However, there is no available research to suggest that military mothers will follow the same behavior as civilian mothers. Thus, parental leaves are considered in the right-thing-to-do category and are not evaluated specifically among the efficiency advisability assessments that follow.

A RETURN-ON-INVESTMENT PERSPECTIVE

Previously, we discussed the various types of extended leave programs and enumerated the three rationales for implementing pro-

⁴See, for example, Hyde et al., 1993, 1996; Kaufman and Uhlenburg, 2000; Klerman and Leibowitz, 1994, 1999; Joesch, 1997; and Hofferth, 1996.

grams. We focus here on the efficiency, ROI rationale to determine the advisability of programs.

Program Participation and Design Characteristics

This section summarizes programs in terms of their design characteristics. In essence, these programs can be large or small (level of participation), provided to large groups based on tenure or to individuals based on merit or need, high or low cost, have a human capital gain or loss, and be long or short in duration. Table 4.1 shows these characteristics and the possible types of programs that match them. For example, Case B, a program that provides regular military compensation (RMC) for its participants might be either a personal extended leave program available to the relatively few who experience the need, or a personal growth program offered to a relatively small number of people. The key difference between these programs is whether the participant's human capital increases or decreases. Note that ROI analysis is based on the *characteristics* of the programs, such as level of participation and compensation, rather than the *type* of program.

Potential Costs and Benefits of Extended Leaves

Table 4.1 forms the basis for analyzing the advisability of extended leave programs. These characteristics are the basis for creating four different cases for analysis and are the inputs to an illustrative ROI analysis. ROI analysis looks at the relationship between program costs and benefits given certain assumptions. We compute ROI percentage by using the following formula:

$$\text{ROI} = \frac{\text{Program Benefits} - \text{Program Costs}}{\text{Program Costs}} \times 100.$$

Program Costs

The costs of the extended leave programs in our illustrative analysis are of three types. The first is per-person compensation costs for people participating in the program. At the high-cost end (cases A

Table 4.1
Design Characteristics of Possible Programs for Analysis

Case	Basis and Level of Participation	Costs Included	Duration	Possible Type of Leave Program	Human Capital Effect
A	Cohort: 50 percent of population	RMC; administrative	Up to 6 months	Sabbatical	Gain
				Social service	Gain
B	Individual: 9 percent of population	RMC; administrative	Up to 6 months	Personal extended	Loss
				Personal growth	Gain
C	Cohort: 50 percent of population	Benefits; reduced administrative	Up to 6 months	Sabbatical	Gain
				Social service	Gain
D	Individual: 9 percent of population	Benefits; reduced administrative	Up to 6 months	Personal extended	Loss
				Personal growth	Gain

NOTE: Duration at this stage is an input or design feature. Later, we show maximum duration that provides positive ROI in conjunction with the other inputs.

and B), they are RMC from the fiscal year 2002 tables. At the other end (cases C and D), these are the estimated costs of benefits only. The second type of cost is the estimated administrative cost of operating the program. Per-person cost is judged to be higher for small programs and small cohorts than it is for large programs and large cohorts. For some cases (C and D), we halve the estimated administrative costs to determine the effect. The third type of cost is human capital loss (or gain). In some programs, the nature of extended leave (e.g., for elder care) is not such that the officer is enhancing or maintaining either general or specific human capital. In other programs (e.g., a social service leave), one could make the argument that general human capital is increased. Program cost is the sum of all administrative and program-specific outlays needed to execute the program and the estimated net gain or loss in human capital.

Program Benefits

Program benefits included in the analysis are more fully described in Appendix A. The benefit of extended leave programs for this analysis

is increased retention. However, if strength remains constant, there must be a manpower reduction elsewhere to accommodate some officers staying longer. We estimate the program benefit to be the difference between the costs of two steady-state force profiles given constant strength (or man-years). The first profile is a base case prior to program implementation; the second profile is a new one with the additions to officer man-years due to the program and subtraction of other man-years to maintain the same end strength. In other words, if the program increases retention, the profile will indicate more man-years in the targeted cohort group and fewer elsewhere in the system to maintain the same number of officers in the system. In some cases, this “benefit” can be negative and signifies that ROI is not positive.

Given these program costs and benefits, we evaluate each case using the ROI formula above. This assessment leads to observations about the efficiency of programs from this perspective. Alternatively, such programs might be warranted from the right-thing-to-do or competitive employer perspective, previously discussed.

Assumptions

Our analysis includes certain assumptions that are more fully described in Appendix A:

- End strength stays constant; increases in retention must be offset elsewhere.
- Greater experience is desired to minimize a gap between authorizations and inventory or to take the opportunity to reshape force profiles.
- Officers who participate are required to commit to two additional YOS.
- O-3s will serve the two years of commitment; O-4s will serve a total of eight years after their leave (two-year commitment plus an additional six years); and O-5s and O-6s will stay for a total of four subsequent years.

- Retention effects (which are not known) do not vary with size and cost of a program. Thus, we vary retention parametrically from 1 to 10 percent for all programs to determine the results.

ILLUSTRATIVE RETURN-ON-INVESTMENT CALCULATIONS

The purpose of the study was not to provide assessments of specific programs targeted to particular groups or individuals. Instead, we were asked to illustrate several cases so that we could elicit the variables that most affect ROI. The intent is to indicate what characteristics of a program result in higher or lower ROI so that the sponsor can consider the most appropriate programs. The precise ROI is not as important as whether or not it is positive and what affects it.

As suggested above, the design of the programs selected for illustration can vary by size (small to large numbers of participants), length (one to six months or more), and compensation (full RMC, only basic pay, only benefits).⁵ Moreover, some program designs would increase human capital, while others would not. Each of the cases outlined in Table 4.1 will be analyzed for each of the several cohorts described below.

Potential Participants

The sponsor and the services suggested several cohort groups that are likely targets of an extended leave policy either as a group or as individuals within that group. The cohorts are O-6s with 26 YOS, O-5s with either 16 or 22 YOS, O-4s with 12 YOS, and O-3s with 5 YOS. We arbitrarily picked data from one service to use in our illustrative analysis. Figure 4.1 illustrates these cohorts.

⁵These three variables have multiplicative effects in the analysis. For example, the combination of size and length produces program person months. Compensation scales down the cost of these person months depending on the choice made for less-than-full RMC.

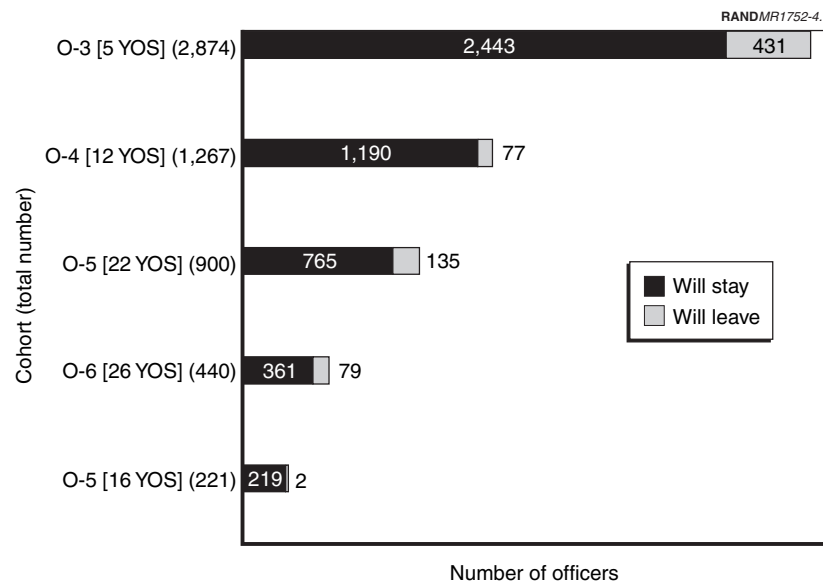


Figure 4.1—Cohorts for Analysis

For each cohort, size is shown immediately after the cohort label. The bars break the cohort into two groups: those who will continue into the next YOS and those who will not. Size and continuation is based on historical numbers and rates from the Defense Manpower Data Center. Each of these cohorts is different in size and current retention behavior. For example, a higher percentage of the O-3 [5 YOS] cohort is likely to leave than in the O-4 [12 YOS] cohort. The O-5 [16 YOS] cohort has only two officers who are likely to leave.

Potential Participants and the Four Cases

Figure 4.2 is based on Table 4.1. Cases A and C are called large because they target a program at 50 percent of everyone in the cohort. Cases B and D are small, since they target individuals who represent 9 percent of the cohort.

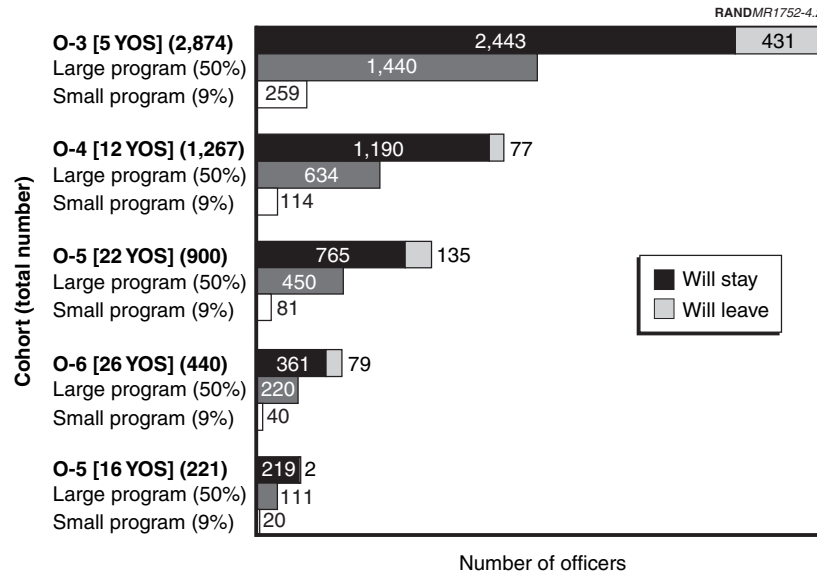


Figure 4.2—Cohorts for Analysis, by Program Size

There are additional characteristics of interest that are now observable. For example, it is possible to have all potential “leavers” in the O-3 [5 YOS], O-5 [22 YOS], and O-6 [26 YOS] cohorts participate in the large program but not the small program. For the O-4 [12 YOS] cohort, all potential leavers could participate in both. For the O-5 [16 YOS] cohort, the size of either program seems excessive relative to the number of leavers. Of course, when the program is offered, one does not necessarily have an advance knowledge of who will stay and who will leave.

Table 4.2 summarizes the program participants for each of the four cases based upon the five cohort groups and notes the number of leavers that each program would ideally include (and target if possible). Two cases (A and C) are large, and one (A) is designed to have higher program costs than the other. Cases B and D are similarly designed for the small program, with Case B having higher program costs.

Table 4.2
Cases for Illustrative Return-on-Investment Analysis

Case	Participants (Number)	Number of Leavers
A: 50 percent of population; RMC; administrative costs	O-3 [5 YOS] (1,440)	431
	O-4 [12 YOS] (1,190)	77
	O-5 [22 YOS] (765)	135
	O-6 [26 YOS] (361)	79
	O-5 [16 YOS] (111)	2
B: 9 percent of population; RMC; administrative costs	O-3 [5 YOS] (259)	431
	O-4 [12 YOS] (114)	77
	O-5 [22 YOS] (81)	135
	O-6 [26 YOS] (40)	79
	O-5 [16 YOS] (20)	2
C: 50 percent of population; benefits; 1/2 administrative costs	O-3 [5 YOS] (1,440)	431
	O-4 [12 YOS] (1,190)	77
	O-5 [22 YOS] (765)	135
	O-6 [26 YOS] (361)	79
	O-5 [16 YOS] (111)	2
D: 9 percent of population; benefits; 1/2 administrative costs	O-3 [5 YOS] (259)	431
	O-4 [12 YOS] (114)	77
	O-5 [22 YOS] (81)	135
	O-6 [26 YOS] (40)	79
	O-5 [16 YOS] (20)	2

Return-on-Investment Calculation

We employ an ROI analysis for the four cases using the program costs, program benefits, and assumptions described earlier. Rather than calculating an ROI directly for all ranges of input variables (Table 4.1), we determine how long a program could be with various levels of retention of participants and still have a positive ROI. We vary parametrically the levels of retention from 1 to 10 percent of program participants to see the effect. In essence, what percentage and number of people who participate in the program for a particular duration (length of time) would have to change their minds about leaving so that the program results in a positive ROI? Having done that assessment, we examine how the retention of participants in the program compares with the number of likely

leavers as a check on plausibility. Because we do not necessarily know in advance whether participants will be stayers or leavers, we then need to assess whether the calculated retention needed for positive ROI is tractable. The details of the analysis are provided in Appendix A.

Results

Table 4.3 serves as an extension of Table 4.2 and shows the results of our assessment. The table is designed to answer two questions dealing with retention effects and program duration given the size of the program (column 2) and current retention behavior (column 3). The last three columns show what retention effects must be assumed in order to achieve a positive ROI. Column 4 shows the maximum duration of a program given the level of retention in column 5. For the first row, a large, costly program for O-3 [5 YOS] could be 1.5 months long if 5 percent (72 officers) of the 1,440 participants changed behavior and stayed. Alternately, if 10 percent of the participants (144 officers) changed their mind, the program could be as long as 3.5 months. Duration between 1.5 and 3.5 months has positive ROI for retention of participants scaling up from 5 to 10 percent. However, the last column makes these outcomes seem implausible. The 72–144 officers who would need to change behavior represents 17–33 percent of all those who are now expected to leave. This seems higher than what might be achievable in practice. However, we do not know what actually *is* achievable as there are no prior programs or surveys of which we are aware that could be used as a data source. Our assessment is a what-if analytical experiment designed to assess likely results of implementation and examine the significant variables affecting positive ROI.

All the other rows in the table can be interpreted in a similar fashion. We have italicized numbers in the last column for the case and cohort combinations where retention of leavers seems plausible.

Analysis of Results

Our analysis provides some specific insights that we discuss immediately below and is followed by more-general observations from the assessment.

Table 4.3

Outputs from Illustrative Return-on-Investment Analysis

Case	Participants (Number)	Leavers (Number)	Duration (Months)	For Positive ROI		
				Retention of Participants (Percentage)	Retention of Participants or Leavers (Number)	Retention of Leavers (Percentage)
A: 50 percent of population; RMC; administrative	O-3 [5 YOS] (1,440)	431	1.5–3.5	5–10	72–144	17–33
	O-4 [12 YOS] (1,190)	77	1	10	63	82
	O-5 [22 YOS] (765)	135	1.5–3.5	5–10	23–45	17–33
	O-6 [26 YOS] (361)	79	1–3.5	5–10	11–22	14–28
	O-5 [16 YOS] (111)	2	0–0	10	2	100
B: 9 percent of population; RMC; administrative	O-3 [5 YOS] (259)	431	0.5–2.5	5–10	13–26	3–6
	O-4 [12 YOS] (114)	77	0.5	10	11	15
	O-5 [22 YOS] (81)	135	2.5	10	8	6
	O-6 [26 YOS] (40)	79	1.0–2.5	5–10	2–4	3–5
	O-5 [16 YOS] (20)	2	0–0	10	2	100
C: 50 percent of population; benefits; 1/2 administrative	O-3 [5 YOS] (1,440)	431	1–6+	1–10	14–144	3–33
	O-4 [12 YOS] (1,190)	77	2–4	5–10	32–63	41–82
	O-5 [22 YOS] (765)	135	2–6+	2–10	9–45	7–33
	O-6 [26 YOS] (361)	79	1–6+	1–10	2–22	3–28
	O-5 [16 YOS] (111)	2	0–0	10	2	100
D: 9 percent of population; benefits; 1/2 administrative	O-3 [5 YOS] (259)	431	3–6+	5–10	13–26	3–6
	O-4 [12 YOS] (114)	77	1–3	5–10	6–11	7–15
	O-5 [22 YOS] (81)	135	3–6+	5–10	4–8	3–6
	O-6 [26 YOS] (40)	79	1–6+	2–10	2–4	1–5
	O-5 [16 YOS] (20)	2	0–0	10	2	100

NOTE: Italicized numbers in the last column represent the case and cohort combinations in which retention of leavers seems plausible.

Any program with limited length (less than or equal to two months for large and less than or equal to one month for small) that changes retention behavior of at least 10 percent of the participants generally has positive ROI, whether the program is large or small or has a gain or loss in human capital, unless applied to such cohorts as O-5 [16 YOS], where there are currently few leavers. Programs for some cohorts (O-3 [5 YOS], O-5 [22 YOS], O-6 [26 YOS]) can have a positive ROI with 10 percent change as long as they are three months or less in duration. Length and size of a program are variables that increase cost but not necessarily the amount of retention. However, large, high-cost programs are not likely to attain enough retention from likely leavers to make them advisable if ROI is the metric. Small programs and less costly programs (for cohorts other than O-4 [12 YOS] and O-5 [16 YOS]) generally could be advisable.

Programs that target cohorts in which there is the highest likelihood of changed retention behavior are more efficient. For example, it is difficult to get much more retention from the O-5s with 16 YOS: Almost all of them already stay.⁶ O-6s at the 26 YOS mark, O-5s at the 22 YOS mark, and O-3s at the 5 YOS point are more appealing targets. The greatest targeting is, of course, for individual officers whose retention (beyond a two-year payback) can be changed by a program. Differences among certain programs (e.g., personal growth and personal extended leave) exist only because we assume a gain in human capital for one and a loss for the other. ROI does change but not significantly because these are small costs or benefits in the analysis. In general, programs for O-3 and O-6 cohorts have higher ROI than those for O-4s and O-5s (prior to 20 YOS). This is because O-3s do not reach retirement with our assumptions and O-6s already have, so program benefits are higher. For this reason, programs for O-5 [22 YOS] also have higher ROI. Programs that use basic pay or only benefits (rather than full RMC) have higher ROI and can be efficient even if they offer longer leave or result in less retention change. This suggests that programs that limit cost (e.g., no compensation or administrative costs), such as “broken service” programs, would

⁶The O-5 with 16 YOS case is problematic. The cohort has an extremely high continuation rate, and the few officers who do not continue may be medically or performance disqualified or in fact deceased. This case may be infeasible rather than inadvisable.

have positive ROI.⁷ For some programs, only a few officers changing behavior (i.e., two to eight officers) can result in positive ROI. For a constant number of officers changing behavior, smaller programs of reasonable length have higher ROI than larger (or longer) programs: The benefit is fixed while costs increase with size or length of the program.

GENERAL OBSERVATIONS FROM THE ILLUSTRATIVE RETURN-ON-INVESTMENT ANALYSIS

What did we learn from this illustrative exercise? First, we learned that programs can and should be designed to be advisable from an ROI perspective. The factors that most govern advisability are participant applicability, size, duration, and cost. Programs should be targeted to groups or individuals of which there is the highest likelihood of changing behavior. Some groups, such as the O-5s with 16 YOS in our illustrative analysis, are not good choices. Cohorts of which there is a low continuation rate in certain YOS appear better choices. Cohorts that have large numbers of potential participants but low numbers of expected leavers are not good choices unless the program can somehow be targeted only to likely leavers. However, targeting in this fashion begins to challenge the purpose of the program itself. Is it designed only for those in certain year groups? Additionally, is it designed for many people or just for those who might leave? The most targeted programs are those aimed at particular individuals, either the best performers or those who are most certain to leave. As noted earlier, the size of the program, its duration, and its cost are multiplicative. Reducing any one of them improves the ROI of the program. Thus, if program costs are high (e.g., full RMC for participants, high per-person administrative costs), shorter and smaller programs are more favorable for the same retention effects. If a program is designed to be large, it must be short and low in cost to be advisable. Reducing compensation from full RMC to only benefits is similar to reducing either program size or duration by about one-third. Ultimately, the programs with the more favorable ROI are some combination of small, short, and low cost. However, we must

⁷The exception to this would be an officer who could not now retire and returns for only enough time to gain retirement. If the officer served for more than two years beyond retirement age, the statement remains true.

then question whether the retention needed for the favorable ROI can be achieved from a small group of participants taking a short leave. Large, long, high-cost programs, not surprisingly, seem ill advised from an ROI perspective.

Second, a prime consideration in program benefits is how much additional service is achieved from someone who changes behavior and stays in service. Gaining two additional years is not as favorable to ROI as gaining four additional years. However, this can be tempered by significantly reduced program benefits if too much service is obtained from certain cohorts. The O-5 with 16 YOS is not a good cohort for a program for many reasons, including the fact that it is costly to secure an additional four years of service from someone who will now achieve a 20-year retirement, whereas previously he or she would not have.

Third, some cohorts seem not to be advisable targets—that is, the costs of the program are extremely high for the few additional man-years that can be gained. Programs aimed at cohorts with 15–19 YOS would fall in this category. There are few potential leavers compared with the numbers of those who would be included in broad-based programs. Only particular individuals (primarily top performers who are likely to leave absent the extended leave opportunity) should be considered in these YOS cohorts.

Fourth, some cases—combinations of programs and cohorts—are not plausible, either because there are few leavers who might change behavior or because a high percentage of leavers would have to change behavior to achieve a favorable ROI.

Fifth, given the short duration of these programs, gain or loss of human capital did not have a significant effect. If individuals had the capacity to negotiate different compensation as a result of a gain in human capital or if the service could reduce compensation as a result of a loss, then it might matter. However, with fixed compensation grades and longevity steps, there is not a significant change.

Last, it becomes clear that if efficiency (positive ROI) is the primary criterion for judging the advisability of a program, each proposal should be analyzed on its own merits by considering target population, size, duration, cost, and such conditions as requiring return to service or an additional service obligation.

This chapter summarizes the report, provides specific program recommendations, makes additional observations, and provides some implementation guidelines.

SUMMARY

A variety of extended leave options are available to employees in the private sector, and the use of these programs fluctuates relative to the economic health of their organizations. They can be categorized into five main kinds of extended leaves: personal extended, sabbatical, social service, personal growth, and voluntary to meet business needs.

The appropriateness of any of these extended leave programs for military officers can be assessed by whether it is the “right thing to do” or whether the leaves are efficient (i.e., either produce cost savings or show likely ROI). Considering whether programs are the “right thing” reflects both the individual officer perspective and a recognition that if such practices become more widespread among private-sector employers, they will be both expected by officers and necessary to attract new officers. Our efficiency evaluation suggests that the purpose of the leave (e.g., personal growth or social service) has only a minor impact on the cost efficiency of the program. Instead, the duration of the leave, the number of participants, the compensation offered to participants, and the likelihood that participants would be those who would otherwise have left the service (but will now remain) are the aspects that determine the cost-effectiveness of extended leaves.

RECOMMENDATIONS

We recommend a flexible range of personal extended leave programs, further consideration of an educational sabbatical, specific cohort-based analysis to explore and validate programs for specific groups, and improvement of existing return-to-service programs.

Implement a Flexible Range of Personal Extended Leave Programs

To begin, we recommend the implementation of a flexible range of personal extended leave programs as such programs were earlier discussed and analyzed.¹ Such programs would be consistent with the civilian acknowledgment of personal needs (in the form of FMLA). Such programs could be exercised with the approval of the service secretary. They might be either paid or unpaid leave, consistent with whether the individual was required to return (following paid leave) or encouraged to return (following unpaid leave). A required-to-return personal extended leave might also offer only benefits to the individual (and thus respond to a medical crisis within the individual's family). Given proof of need, eligibility for the program and determination of level of compensation or benefits would be based on the merit and professional performance of the individual. The uncompensated range of these programs could also be implemented with a revised return-to-service program. However, compensating officers with basic pay or benefits during a personal extended leave would require legislative change, such as modifying Section 708 of Title 10 U.S.C. or adding a new section to Title 10, to permit paid leaves of absence for purposes other than education.

Table 5.1 outlines these options for personal extended leave and indicates the differences and similarities with existing programs in the services. The first row denotes the current return-to-service program by which an individual can leave, receive no pay or benefits, and might return to service if his or her return is judged in the best interest of the service (and there are no accession constraints on

¹This recommendation is based on achieving minimum retention effects that are the primary quantifiable benefit and on keeping administration costs reasonable.

Table 5.1
Recommended Personal Extended Leave Programs and Existing Options

Cause for Departure	Occupation or Performance Level	Compensation and/or Benefits	Option for Return to Service	Vehicle
Any	Any occupation; meets minimum performance requirements	None	Allowed ^a	Service policy
Intense personal need (1)	Critical occupation with minimum performance requirements or any occupation and superior performer	None	Guaranteed within fixed number of years	Service policy (as revised)
Intense personal need (2)	Any occupation; meets minimum performance requirements	Benefits	Required	Secretarial authority (as revised)
Intense personal need (3)	Critical occupation with minimum performance requirements or any occupation and superior performer	Basic pay and benefits	Required	Secretarial authority (as revised)
Education	Any occupation; meets minimum performance requirements	Basic pay and benefits	Required ^b	Secretarial authority

^aOption already exists but is currently contingent on service needs.

^bOption already exists.

return-to-service individuals). The next three rows designate flexible options for personal extended leave, differing by the merit of the individual, the compensation received during the extended leave, the resultant commitment or guarantee of return, and the likely policy or legislative vehicle. The last row reflects the existing educational sabbatical.

Consider More-Flexible Educational Sabbaticals

Sabbaticals could be used as a substitute for intermediate schooling. Officers could be granted time to pursue particular educational opportunities of use to them and their military careers in lieu of formal resident attendance at a particular school. Officers would have

more freedom to do things of interest to them and to their service. This is a means of expanding intermediate education to meet people's expectations when location constrains attendance at a particular school. For example, the Air Force is striving to change development to satisfy skill and competency needs while best utilizing the amount of time for force development. Sabbaticals could be part of this.

Sabbaticals could see significant use if current schooling patterns change. If intermediate or senior service schools shifted from year-long residency to more-frequent periods of three months or less, sabbaticals of an additional three months (without a geographic relocation) could be used for the officer to complete certain educational requirements or pursue other activities. A three-month residency program, however, might not meet all needs. With a sabbatical, officers could be learning "more different things" than might be taught in a three-month program.

Evaluate Personal Growth or Sabbatical Programs for Specific Cohorts

This analysis and some RAND concurrent analysis (Yardley et al., forthcoming) suggest evaluating programs for specific cohorts in which more precise population size, continuation rates, and specific retention problems to be addressed are available as analysis inputs. Based on the advisability findings in Chapter Four, these programs would likely target junior officers—a group potentially having more "leavers"—whose retention decisions could be reversed. Given a rich understanding of the cohort, community managers could target the program toward the officers most likely to leave without such a program. Shorter programs and those with benefits only, limited compensation, or no compensation are the most likely to evaluate positively. Participating officers would incur required service upon their return. The criterion would be based on individual merit. The services would require new legal authority in order to compensate officers during their leaves of absence.

Improve Existing Return-to-Service Programs

DoD has return-to-service programs designed to reenter former officers if deemed in the best interest of the services. However, discussions with service manpower personnel suggest that such lateral entries are often limited or even precluded, even when judged in the service's best interest. For example, one service suffers shortages of mid-grade officers but cannot accept all the return-to-service applicants, even though such officers could immediately help resolve shortages. Such return-to-service candidates are counted as accessions and are precluded based on the steady flow of accessions from the academy and ROTC (Reserve Officer Training Corps). Despite an excess of junior officers and a shortage of mid-grade officers, this service cannot accept return-to-service applicants in place of other new accessions. We suggest that these programs should be revisited and accessions prioritized in the greater context of service need and total accession plan.

OBSERVATIONS

We offer some general observations from this research that apply to any programs instituted.

Regardless of which programs are instituted, leadership support will be critical to the success of these programs to ensure not only that officers are offered programs for which they are eligible but also that officers are not unduly disadvantaged for taking advantage of such programs.

We perceive that short-term programs are likely to be perceived more negatively and would have a more negative impact on individual units, as unit personnel will be conscious of which job is temporarily unfilled (and which individual is enjoying a leave); conversely, longer leave programs are more likely to be accommodated in the individuals account. Units still are manned at a lower level, but there is less correlation between the undermanning and a particular program (and no knowledge of which individual should be filling a particular position). The impact of such longer programs, to the extent that they are manned from the individuals account, is also more controllable, as higher-priority units will still receive higher levels of manning and not be affected by the leave programs.

Merit-based programs and programs awarded for certain service or assignments have the potential of greater acceptance. An individual awarded an extended leave based on merit is less likely to be penalized for taking such a leave, given that the award was a positive statement of his or her performance.

If long-term leaves (more than six months) are instituted, the individual's year group should be adjusted so that he or she is not competing for promotion against peers who may have had valuable career assignments during the individual's leave tenure. We note also that the Navy working group assessing extended leaves has identified more management issues that need to be addressed, including whether or not personnel in negotiation for their next assignment should be eligible for extended leaves. However, "stopping the clock" does not take into account the value of any gain in human capital that the individual may have made during his or her leave.

We acknowledge that analysis has been conducted in the contemporary context. This was apparent in some of our interviews during the course of this research; some manpower managers generally resisted offering extended leaves for officers, and we believe this resistance reflects their own experiences and values. They tend not to understand, or possibly respect, those who might wish to take "time out" rather than charge ahead with a career focus. To many of these managers, such time off would reflect a different set of priorities than their own, and thus they are potentially less inclined to accommodate such notions. The managers' resistance was also closely related to two current factors.

First, managers told us frequently that such changes would be difficult in the current manpower management system. We acknowledge that the current management systems do constrain changes to the system and that implementing such changes as extended leaves would require some new methods for managing officers. Second, the current retention environment also appears to retard motivation for instituting extended leave programs. Given that retention is currently good in most occupations, manpower managers are less inclined to institute such changes.

It is important to note that, generally, manpower managers stated these concerns prior to recognizing that certain programs could have

positive ROI. While concern about the difficulties of instituting such programs remains, the motivation to do so appears to increase once the possibility or likelihood of a positive ROI is indicated.

The generational values of those who might take advantage of such extended leave programs are also important to remember. Tomorrow's service member is likely to hold different values and expectations regarding career tenure and the overall role or place of a career in his or her personal life. Anecdotal evidence suggests that today's youth are more likely to take a year off prior to beginning college or at the conclusion of college before starting their professional work. Other research suggests that tomorrow's workforce will experience more productive years prior to full retirement and will likely have time for such breaks.² Different work-life patterns could increase the need for such programs within the military. More precisely, if civilian employers anticipate such programs to please or retain their workforce, the military will need to consider such programs as well—not only to increase the satisfaction of its service members but also to attract and retain individuals by serving as a competitive employer. Alternatively, if civilian employers do not institute such programs (e.g., because the economy suffers a downturn), the military may feel less motivated to institute extended leave programs.

While many personnel with whom we spoke were intrigued by personal extended leaves as a way to accommodate personal crises or needs (e.g., extended maternity leaves and elder care responsibilities), many of the programs explored would not be appropriate for such personal needs, given eligibility or other timing constraints.

²See, for example, the discussion on work-life duration in National Research Council (1999). A man born in 1900 could expect to live about 48 years, of which 32 years would be spent working and 16 years not working. For these men, nearly all their nonwork lives occurred prior to entry into the workforce. By 1980, 20 years of life expectancy had been added but only six years of work expectancy. The additional years were added to nonwork expectancy that now occurs prior to, during, and after entry to the workforce. For women, work-life expectancy was significantly different by 1980 because of changed labor force participation rates. In 1980, women had a life expectancy of 78 years and a work expectancy of 29 years, leaving almost 50 years of nonwork life. Since 1980, life expectancies have extended further, leaving room for increases in both work and nonwork expectancies. Life expectancies are projected to be 75 for men and 81 for women in 2005. Pamela Paul (2002) discusses data that indicate more interest in using nonwork time during productive years rather than at the end of life.

There are specific programs that do address personal needs well, and we address these in our recommendations. Our recommendations also explore the extent to which current programs could be expanded to accommodate extended leaves for different purposes.

IMPLEMENTATION GUIDELINES

We believe that some guidelines for implementation should be considered regardless of which programs are adopted. Among them are the following:

- Policy should be shifted toward being merit based and away from purely need based, with equality of application.
- Programs should not be gender based but could be restricted to occupations or communities.
- Clocks (the time-in-service cohort map) should be stopped for longer programs.
- With the exception of programs designed to accommodate dire personal crises, individuals should be between assignments and not be in negotiation for the assignment process.
- Community managers should have input regarding the “health” of their community when implementing any large-scale program.
- Personnel must have received positive fitness reports or evaluations, cannot be in failed-officer-selection status, and cannot be within the retirement sanctuary or two years of their high year tenure point.

Additionally, we assert that the military services should continue to evaluate the adoption of additional programs in order to establish or maintain their reputation as a competitive employer. For example, FMLA is law for the private sector but not for the military. Many companies already provide paid leaves of this nature, and at least one state has mandated paid FMLA programs. Others are considering them. At some point, the services may need to do so as well. Moreover, while the services already have paid leave programs that exceed those of other private- and public-sector organizations, data show that not all personnel are able to take the leave they have

earned, which limits the programs' effectiveness as retention tools. Programs that facilitate the use of earned leave (possibly in conjunction with paid extended leave) can help preserve the reputation of the military as a competitive employer.

ASSUMPTIONS AND METHODOLOGY

This appendix provides greater detail about the assumptions, program costs, program benefits, and ROI methodology that we used.

ASSUMPTIONS FOR RETURN-ON-INVESTMENT ANALYSIS

First, end strength is assumed to stay constant; increases in retention must be offset elsewhere. As discussed below, we will analyze the benefits of different force profiles while holding strength constant. Even as the strength stays constant, it could be accounted for differently depending on the particular implementation of a program. There are two strength accounts that matter. One is generally referred to as the operating account, and it is the allocation of end strength to units and activities that meet mission needs. The Air Staff and a carrier battle group are both examples of units staffed from the operating account. The individuals account assigns patients, prisoners, students, trainees, and transients for accounting purposes while in that status. In most cases, these latter accounts in all services are “underfunded” (or “overexecuted”), meaning that there are more people actually in these statuses than was planned (or budgeted) for. As a result, operating units and activities have fewer people than planned. Extended leave programs have the potential of exacerbating such existing underfunding.¹ For example, a program might move an

¹Should a new program that makes the existing situation worse be started? All programs, new and old, which contribute to the existing situation need to be reviewed collectively if fixes are to be made. The issue of underfunding the individuals account is a long-standing one.

individual from the operating account to the individuals account, which means there is one less person to assign to operating units. Or, a program might continue someone already in the individuals account for a longer period of time with the same effect. A third possibility is a unit-based program that would keep the person in the operating account but make them unavailable for duty with the same practical effect.² In all these cases, there is a readiness “loss,” some of which would be measurable in the unit status report. However, other studies have shown that readiness is a consumable. If not immediately used, it must be continually refreshed and maintained. Thus, the issue arises as to whether individuals would be recalled from extended leave programs given an operational need and how much time would be needed to return the activity to the desired readiness status. The experience of the Army athletes program is relevant here because such a recall was explicitly considered following the attacks of September 11, 2001.³ The more important issue for ROI calculation is that overall end strength will not increase.

A second major assumption is that more experience is desired and thus increased retention is good. Is it of value to keep individuals whose occupations are overstaffed? Is it of value to keep individuals whose tenure cohort has more people than desired? Whether the benefit is positive depends not only on how much longer officers stay in the military (see below) but also on the demand for more-senior people and productivity returns experienced. The program benefit is the retention of trained and experienced people, which can minimize gaps in force profiles, allow reshaping of force profiles, and respond to changing needs of service members. We make the ROI calculation under the assumption that a more experienced force is desirable and thus that retention of these officers is desirable.

²There are some pragmatic differences however. If the person is in the individuals account, the shortages are generally shared across all units, with high-priority units getting less of the shortage—that is, an unknown person is missing from the unit, but someone is always missing, and the unit pulls together to get the work done. If the person remains in the unit but is absent from duty, everyone knows it is Joe or Mary who is missing. This type of absence can have more immediate repercussions.

³Further, some civilian companies reserve the right to recall employees from extended leaves.

A third assumption is that officers are required to serve for two additional years if they participate in a program in which some form of compensation is paid. Thus, in our analysis we must examine whether likely leavers are included in programs or only those who are likely to stay anyway.

A fourth assumption deals with the length of additional service gained given that the officer stays rather than leaves. We assume that the O-3 stays for two additional years, the O-4 stays for eight additional years (to the 20-year point), and the O-5 and O-6 stay for four additional years. These are estimates based on discussions with service personnel managers. O-3s do not yet have the significant draw of the retirement system and therefore are not likely to stay for a long period. On the other hand, O-4s are more likely to stay to the first point of retirement, and continuation data generally support this. O-6s at 26 YOS who stay are estimated to stay to 30 YOS to maximize their retirement at 30 YOS. What O-5s at 22 YOS would do is more problematic. The last basic pay table increase is at 22 YOS. Additional service gains retirement credit and cost-of-living increases. Moreover, these officers will shortly be subject to the “High-3” retirement calculation,⁴ so service to at least 24 YOS is needed to maximize that calculation. We judged such an officer would serve to 26 years for 65 percent of High-3 basic pay.

Another assumption is that retention effects may not vary with the cost (duration and size) of programs. We have no crystal ball that tells us if officers’ retention behavior will change. Nor do we know if the cause of the change is effected by the extended leave itself (even if of short duration) or the size and the length of it (which drives the cost). We begin the analysis with a projected percentage factor for retention change and then vary this parametrically from 1 to 10 percent of program participants.⁵ We also analyze absolute numbers, rather than percentages, of officers who change behaviors. We show the effects of doing the analysis both ways, but our primary analysis

⁴High-3 retirement is calculated using the average base pay for the individual’s three most highly paid years.

⁵During the course of this research, some individuals suggested that retention effects might be observed in earlier grades than in those grades to which the program is targeted. For example, O-3s might stay if they know that O-4s can be granted an extended leave. This is plausible, but we do not estimate these second-order effects.

is for percentage change. We use the absolute numbers of officers as a way to assess plausibility of retention. Is it realistic to achieve the estimated level of retention given the number of officers who will leave? Some amount of retention behavior for certain cohorts based on experience is infeasible, and other retention behavior has to be debated for its plausibility.

We also assume that reasonable benefits can be reaped and measured. Some of the designed programs do have plausible increases in human capital, and we account for this as a benefit.⁶ We do not take as a quantitative benefit the increase in satisfaction and motivation that should result from the program because we do not know how to “dollarize” this. Nor do we include any productivity effects beyond a small gain or loss in human capital. These are short duration programs, and how to assess productivity and how much to assess are beyond the scope of this project. As discussed below, the largest benefit is avoiding the cost of producing officers if they do not need to be replaced as quickly. In essence, these life-cycle savings depend on the additional YOS gained compared with that already served, and they are reduced by higher compensation and retirement costs.⁷ We also assume that fewer officers of lower grades are needed as the officers in the grade under analysis are reduced.⁸ With increased retention in a grade, fewer people are needed to produce the needed man-years. This is an especially plausible assumption for occupations or communities in which experienced people are needed. The more-junior people exist in larger numbers than are actually needed in order to ensure that there are sufficient experienced people.⁹ With constant end strength, increased retention in a grade should mean reduced accessions overall and fewer promotions to that grade, both of which account for part of the savings.

⁶We discuss human capital valuation in more detail in Appendix B.

⁷We are approximating the highest costs and benefits and are not directly costing second-order effects that would occur throughout the system.

⁸We discuss later in this appendix how to quantify the program benefit of fewer lower-grade officers needed.

⁹For communities that have lower-grade officers only to produce senior officers in a closed system, this assumption is conservative. If greater man-years in the senior grades can be obtained, then all the underlying positions can be removed.

Can such paper savings be reaped in a meaningful way? It is not clear that requirements determination or accession management is directly tied to retention management. The military services are generally accession driven, and accession decisions are largely divorced from retention decisions in officer management. For example, even as the Secretary of Defense mandates greater service lengths (which should reduce the level of needed accessions), the services are increasing or maintaining the size of the most expensive source (the service academies) and Congress is suggesting an increase in the second most expensive source (ROTC scholarships) to keep parity. Increased retention should mean fewer accessions, not more, for the calculated savings to be real. Also, because we do not reduce end strength, there is, in effect, a reallocation of saved officers to where they are needed,¹⁰ but not a real dollar savings. End strength or accessions ultimately have to be reduced for dollars to be saved. Our analysis uses ROI as a measure of relative efficiency.

Last, we also assume that reasonable costs of these programs can be measured. In some programs, one could argue that human capital is lost, and we include the costs of that.¹¹ We also include administrative, or personnel management, costs (higher per person for smaller programs and less per person for larger programs) and the amount of pay and/or benefits as appropriate for the design of the extended leave program. Costs tend to increase with the size and length of the program, and as stated above these costs may not directly affect retention behavior proportionally.

In a series of spreadsheets, we calculate the ROI that we use to measure program advisability. The spreadsheets are based on program benefits, program costs, and use the ROI equation (discussed later in this appendix). Positive and higher ROI is desirable, but we do not argue for the exact figure we calculate. The precise ROI is not as important as whether it is positive or not.

¹⁰The saved man-years could be added back to the operating accounts, thus reducing the readiness cost. Eventually billet reductions would also need to be made so that the number of unfilled billets does not increase.

¹¹See Appendix B. Also, as discussed previously, we believe there are certain types of personal or noneducational leaves in which the focus is on resolving problems and not on adding to either general or specific human capital through relevant education or experience.

PROGRAM COSTS

The costs of the extended leave programs in our illustrative analysis are of three types. The first is per-person compensation costs for people participating in the program. At the high-cost end (cases A and B), they are the RMC from the fiscal year 2002 tables. At the other end (cases C and D), these costs are the estimated costs of benefits only. The second type of cost is the estimated administrative cost of operating the program. Per-person cost is judged to be higher for small programs and small cohorts than it is for large programs and large cohorts. For some cases (C and D), we halve the estimated administrative costs to determine the effect. The third type of cost is human capital loss (or gain). In some programs, the nature of extended leave (e.g., for elder care) is not such that the officer is enhancing or maintaining either general or specific human capital. In other programs (e.g., a social service leave), one could make the argument that general human capital is increased. Program cost is the sum of all administrative and program specific outlays needed to execute the program and the estimated net gain or loss in human capital.¹²

Table A.1 shows the estimated program costs we used, which are annual estimated costs scaled down based on the duration of the program.

PROGRAM BENEFITS

One of the goals of the extended leave programs is to achieve extended service by some officers. If some officers serve longer, and nothing else changes, end strength will be larger than it was before the program was initiated. Holding total end strength constant requires reducing end strength by the exact additional amount generated by the extended leave program.

¹²Appendix B focuses on this further. The baseline we use is that the compensation clock will stop for extended leaves. For programs where human capital gain is designed in, we count the time spent away as time to be included in compensation at return. For programs where human capital is depreciated, we do the opposite. In essence, we value human capital at what the service pays for it.

Table A.1
Estimated Program Costs

Case	Cohort	Estimated Annual Per-Person Program Costs (\$)				Total
		RMC	Benefits	Administrative	Human Capital	
A: 50 percent of population; RMC; administrative	O-3 [5 YOS]	63,852		1,000	+1,500	63,352
	O-4 [12 YOS]	85,656		1,000	+1,500	84,156
	O-5 [22 YOS]	105,420		1,000	+2,000	104,420
	O-6 [26 YOS]	124,776		2,000	+2,000	124,776
	O-5 [16 YOS]	99,336		5,000	+1,500	102,836
B: 9 percent of population; RMC; administrative	O-3 [5 YOS]	63,852		5,000	-1,500	70,352
	O-4 [12 YOS]	85,656		5,000	-1,500	92,156
	O-5 [22 YOS]	105,420		5,000	-2,000	112,420
	O-6 [26 YOS]	124,776		10,000	-2,000	136,776
	O-5 [16 YOS]	99,336		10,000	-1,500	110,836
C: 50 percent of population; benefits; 1/2 administrative	O-3 [5 YOS]		19,464	500	+1,500	18,464
	O-4 [12 YOS]		26,496	500	+1,500	25,496
	O-5 [22 YOS]		30,276	500	+2,000	28,776
	O-6 [26 YOS]		32,676	1,000	+2,000	31,676
	O-5 [16 YOS]		30,276	2,500	+1,500	31,276
D: 9 percent of population; benefits; 1/2 administrative	O-3 [5 YOS]		19,464	2,500	-1,500	23,464
	O-4 [12 YOS]		26,496	2,500	-1,500	30,496
	O-5 [22 YOS]		30,276	2,500	-2,000	34,776
	O-6 [26 YOS]		32,676	5,000	-2,000	39,676
	O-5 [16 YOS]		30,276	5,000	-1,500	36,776

NOTE: While human capital gain/loss is shown with a +/-, the gain is subtracted from the other costs to get total cost, and the loss is added to the other costs to get total cost.

Let us look at the results of an extended leave program that permits, every year, one O-5 who would have separated with 16 YOS to instead retire with 20 YOS. We can imagine that this program has been in effect for at least four years. Every year, one O-5 with 16 YOS decided to continue to 20 YOS and then retire. This means at any one time, one O-5 who would have retired with 16 YOS now has 17 YOS. Another who would have retired with 16 YOS now has 18 YOS. Another has 19 YOS. And another has 20 YOS. Year after year, if nothing else changes, there are now four more officers than there would have been as a result of the program's implementation.

If, however, we require end strength to remain constant, we must find a way to counter the increased end strength caused by the extended leave program. There are only two ways of lowering end strength to previous levels: separating other officers earlier or accessing fewer officers.

To counter the increase in end strength of extending an O-5 with 16 YOS to 20 YOS, we must find a way to lower end strength by four officers. This can be done, every year, by shortening the career of one officer by four years. For example, each year an officer who would have served to 10 YOS would now be required to separate at 6 YOS. After four years, four officers who would have served to 10 YOS are instead retired at 6 YOS. One of these officers would have been in his seventh YOS, a second in his eighth, another in his ninth, and the last in his tenth. Shortening the careers of these officers by four years (one officer annually) lowers end strength by the required four years.

Alternatively, it is also possible to shorten, every year, the careers of *two* officers by *two* years each. If each year two officers who would have separated at 10 YOS are required to separate at 8 YOS, then after two years, four fewer officers will be in the service. Any number of combinations can be added together to lower end strength by the required amount.

The second option to lower end strength is similar in argument but different in real-world implementation. To counter the increase in end strength in our O-5 with 16 YOS example, it is possible to access one fewer officer who would have served to 4 YOS. If, every year, one fewer officer who would have served to 4 YOS is not accessed at all, then after four years end strength will be lower by four officers. As in

the shortened-career case, four fewer officers serve every year. In other words, after four years, four *different* officers were not accessed. Had they been accessed, one officer would have been in his first year, another in his second, a third in his third, and the last in his fourth. Not accessing these four officers in the first place (lowering accessions by one annually) means that end strength is lower by four officers.

Our goal is to examine the effects of initiating an extended leave program on the total cost of accessing, maintaining, and separating officers. Once we have balanced end strength, and described the officers in the system before and after the extended leave program is undertaken, we can examine the difference in *cost* of maintaining a force consisting of these officers. We assume a steady-state world: Except for the changes we describe, the year-to-year force profile does not change.

Let us assume that for each O-5 who would have retired at 16 YOS and is extended to 20 YOS, one less accession is made annually. This accession would serve to 4 YOS and then separate. Our task is to compare the costs of accession, pay, benefits, and retirement before and after the program is undertaken.

To do this, we must be able to estimate the cost of accessing, maintaining, and separating an officer who will stay any given number of years. The cost of producing an officer who serves to four years before separation includes all the outlays required at every year in his or her career—initial accession costs and yearly pay and benefits. The cost of producing an officer who serves 16 years before separation requires a similar calculation; it includes all the costs of making an officer who stays to 4 YOS but adds the annual pay, benefits, and training required over the additional 12 years. The cost of producing an officer who serves 20 years includes all the costs of producing an officer who serves 16 years, but it also includes four more years of pay, benefits, and training as well as outlays for retirement pay and medical benefits.

The outlays paid to officers occur over their entire careers. Outlays in later years are not the same as outlays in the present. While taking the sum of all outlays over all years will find the total budget cost of an officer, the appropriate methodology will instead use economic

costs. The difference between budget and economic costs is that the latter estimates the value at the *beginning* of an officer's career of all the outlays that have to be made to sustain the officer throughout his or her career and retirement. This is called the present discounted value of the cost of an officer. The further into the future, the more the discount factor adjusts the outlays downward.¹³ The Office of Management and Budget provides the methodology and discount rates to be used in the analysis of all federal programs.¹⁴

The cost of producing an officer who stays four years and then separates is the sum of the present discounted values of the outlays to be made. In algebraic terms:

Cost of Officer to YOS4 =
Accession Costs + Outlay in 1st Year + PDV of Outlay in 2nd Year +
PDV of Outlay in 3rd Year + PDV of Outlay in 4th Year.

We can make the same calculations for officers who serve 16 or 20 years, including PDV (present discounted value) of outlay on retirement when necessary.

As described above, after the extended leave program is initiated, we make one fewer O-5 with 16 YOS, one fewer O-2 with 4 YOS, and one more O-5 with 20 YOS. To find the change in costs of producing officers after the program, we subtract the cost of an O-5 with 20 YOS from the sum of the cost of the O-5 with 16 YOS and the cost of the O-2 with 4 YOS. If this value is positive, the extended leave program results in *less* costly personnel. If this value is negative, the extended leave program results in *more* costly personnel—a negative benefit.

This difference in manpower costs is reflected as part of the Program Benefit portion of the ROI formula:

$$\text{ROI} = \frac{\text{Program Benefits} - \text{Program Costs}}{\text{Program Costs}} \times 100.$$

¹³The formula for discounting an outlay in year Y from today is $\text{Outlay}_{\text{Year } Y} / (1 + \text{discount rate})^{Y-1}$.

¹⁴See Office of Management and Budget (1999), which provides a more extensive survey of the present discounted value methodology.

ROI measures the value received from initiating an extended leave program. Program Benefit is the difference in cost before and after the initiation of the extended leave program. Program Cost is the cost of implementing the program for the duration shown as described above.

HUMAN CAPITAL VALUE

Human resources, management sciences, and economics literature often include discussions on human capital valuation. We reviewed this literature to estimate the value of human capital gain or loss and chose a pragmatic formulation for it. The human resources literature¹ argues that there are four principal costs of human capital: pay and benefit costs for employees, pay costs for contingents, cost of absenteeism, and cost of turnover. For our use of ROI as a screening device, we ignore contingent and absenteeism costs; instead, we review whether pay and benefit investments in programs that reduce cost of turnover are worthwhile and which ones are better than others. These programs have the potential to change the “value” to the organization (and thus the pay) of each person who participates, so the benefit (or cost) of this needs to be calculated as well. Human capital theory suggests that these differences in pay reflect differences in worker attributes, such as education and experience (Ang, Slaughter, and Ng, 2002).

The economics literature tends to use a form of a Mincer equation for this value.² An individual’s earning capacity in a future time period would be increased by some percentage of the gross dollar investment less any depreciation effects. This increase is the changed value in human capital. The human capital investment can be made either formally through established institutions and educational programs or informally through a variety of personal and work experi-

¹See, for example, Fitz-enz (2000).

²See, for example, Kunze (2002).

ences or self-teaching programs. Human capital also deteriorates when it is idle because inactivity impairs knowledge and skills previously acquired (Laroche, Mérette, and Ruggeri, 1998). Studies measure either the percentage ROI or the depreciation effect. For example, one study (Leuven and Oosterbeek, 2002) measured a wage return to training of 7–17 percent based either on participation in it or from taking a course. (Data were not available on the number of hours in training.) Another study (Kunze, 2002) measured depreciation effects. Given this approach, we would need to discuss the differences in the quality and maintenance of the human capital stock that results from the different programs; doing so will dictate the returns from it or what the market will offer for it.

Another view of human capital theory focuses on features of the institution that affect the variation in pay (Ang, Slaughter, and Ng, 2002). Human capital returns in the public sector are not based as much on labor demand factors as they are in the private sector. The public institution dictates returns, and the “individual investor” cannot easily influence them (Laroche, Mérette, and Ruggeri, 1998). In the public sector, pay and benefits are fixed so that their value is known with certainty. For our purposes, we can ignore the debate of what a “true” return would be or how it might be different for the various extended leave programs. We calculate the value or loss in human capital directly because we know what the future earnings capacity is, using the military pay tables. For a particular grade and longevity step, we interpolate from step to step based on the length of the program. Thus, a full-year program has a greater dollar increase in human capital than does a six-week program. Moreover, for the programs in which we judge that there is not a positive effect on knowledge or skills, we decrease human capital value by a comparable amount.³ We apply this value to all officers who participate in a particular program independent of how much retention occurs (turnover reduces) as a result of it. These values are relatively small because the programs are generally less than a year and the compensation steps in the pay table are not large. Ultimately, human

³While we calculate these values directly, it is similar to assuming an 8-percent gross return to training per time period and a 4-percent depreciation or 4-percent net change in wage effects depending on whether or not a program has a return.

capital gain or loss has little effect on the observations from this analysis.

The last decision to be made is whether a particular program increases or whether it decreases human capital. We make this determination based on likely use of the time away from the military. If we assess that there is a gain in knowledge or skills of value to the military, we increase the value. If we assess that there will not be a gain in knowledge or skills of value to the military, we decrease the value.⁴ Doing this is also consistent with how military personnel managers discuss how they would change the “clock” for people returning to the military from some programs. In other words, service members would be accorded less time in service and thus less in wages than those in the cohort from whom they were originally drawn.

⁴In essence, we omit the gross return, and a 4-percent depreciation occurs.

BIBLIOGRAPHY

- Alewell, D., and K. Pull, "An International Comparison and Assessment of Maternity Leave Legislation," *Comparative Labor Law & Policy Journal*, Vol. 22, No. 2/3, Spring 2001.
- Allen, W. D., "Family Illness and Temporary Work Absence," *Applied Economics*, Vol. 28, No. 9, 1996, pp. 1177–1181.
- Ang, S., S. Slaughter, and K. Y. Ng, "Human Capital and Institutional Determinants of Information Technology Compensation: Modeling Multilevel and Cross-Level Interactions," *Management Science*, Vol. 48, No. 11, 2002, pp. 1427–1445.
- Angrist, J. D., and W. N. Evans, "Children and Their Parent's Labor Supply: Evidence from Exogenous Variation in Family Size," *American Economic Review*, Vol. 88, No. 3, 1998, pp. 450–477.
- Avery, C. Z., and D. Zabel, *The Flexible Workplace: A Sourcebook of Information and Research*, Westport, Conn.: Quorum Books, 2001.
- Axel, H., *Redefining Corporate Sabbaticals for the 1990s*, New York: The Conference Board, 1992.
- Bailyn, L., *Beyond Work and Family: Adventures on the Fault Line*, Cambridge, Mass.: Radcliffe Policy Institute, 1996.
- Bass, S. A., "Emergence of the Third Age: Toward a Productive Aging Society," *Journal of Aging & Social Policy*, Vol. 2, No. 2–3, 2000.
- Bennett, H. G., and S. Scroggs, "Sabbatical Leave," *Journal of Higher Education*, Vol. 3, No. 4, 1932, pp. 196–197.

- Berg, P. A., E. Appelbaum, and A. L. Kalleberg, "The Role of the Work Environment and Job Characteristics in Balancing Work and Family," paper presented at an Economic Policy Institute symposium, June 15, 1999.
- Best, F., *Flexible Life Scheduling: Breaking the Education-Work-Retirement Lockstep*, New York: Praeger, 1980.
- Bianchi, S. M., *New Realities of Working Families: Overview*, U.S. Department of Labor, Office of the Secretary, June 1999.
- Binstock, R. H., "The Politics of Near-Term Action to Deal with the Aging of the Baby Boom," *Journal of Aging & Social Policy*, Vol. 2, No. 2-3, 1999.
- Blau, D. M., and P. K. Robins, "Child Care and Labor Supply of Young Mothers Over Time," *Demography*, Vol. 28, No. 3, 1991, pp. 333-351.
- Blau, F. D., and R. G. Ehrenberg, *Gender and Family Issues in the Workplace*, New York: Russell Sage Foundation, 1997.
- Boise, L., and M. B. Neal, "Family Responsibilities and Absenteeism: Employees Caring for Parents Versus Employees Caring for Children," *Journal of Managerial Issues*, Vol. 2, 1996, pp. 218-238.
- Bond, J. T., and D. E. Friedman, "The Role of Employers in Addressing the Need of Employed Parents," *Journal of Family Issues*, Vol. 52, No. 3, 1996, pp. 111-137.
- Bourg, C., and M. W. Segal, "The Impact of Family Supportive Policies and Practices on Organizational Commitment in the Army," *Armed Forces & Society*, Vol. 25, No. 4, 1999, pp. 633-652.
- Cantor, D., J. Waldfogel, et al., *Balancing the Needs of Families and Employers: The Family and Medical Surveys 2000 Update*, Rockville, Md.: Westat, 2000.
- Catalyst, *Report on a National Study of Parental Leaves*, New York, 1986.
- Chavez-Thompson, L., *Ask a Working Woman: Survey 2002*, AFL-CIO, video, 2002.

- Clarkberg, M., "The Time-Squeeze in American Families: From Causes to Solutions," paper presented at an Economic Policy Institute symposium, June 15, 1999.
- Colvin, G., "No More Sabbaticals?" *Fortune*, June 22, 2000.
- Cornman, J. M., and E. R. Kingson, "Trends, Issues, Perspectives, and Values for the Aging of the Baby Boom Cohorts," *The Gerontologist*, Vol. 32, No. 1, 1996, pp. 15–26.
- Costa, D. L., "The Evolution of Retirement: Summary of a Research Project," *American Economic Review*, Vol. 88, No. 2, 1998, pp. 232–236.
- Dodson, L., T. Manuel, and E. Bravo, *Keeping Jobs and Raising Families in Low-Income American: It Just Doesn't Work*, Cambridge, Mass.: Harvard University, 2002.
- Estes, S. B., and J. L. Glass, "Job Changes Following Childbirth: Are Women Trading Compensation for Family-Responsive Work Conditions?" *Work and Occupations*, Vol. 23, No. 4, 1996, pp. 405–436.
- Ettner, S. L., "The Impact of 'Parent Care' on Female Labor Supply Decisions," *Demography*, Vol. 32, No. 1, 1995, pp. 63–80.
- Ettner, S. L., "The Opportunity Costs of Elder Care," *Journal of Human Resources*, Vol. 31, No. 1, 1996, pp. 189–206.
- Evans, L. M., G. L. Henkle, and J. A. Colamonico, *An Affordable Paid Family Leave for California's Working Families*, Los Angeles: UCLA School of Public Policy and Social Research, 2001.
- Feaver, P. D., and R. H. Kohn, eds., *Soldiers and Civilians: The Civil-Military Gap and American National Security*, Cambridge, Mass.: MIT Press, 2001.
- Felmlee, D., "Causes and Consequences of Women's Employment Discontinuity, 1967–1973," *Work and Occupations*, Vol. 22, 1995, pp. 167–187.
- Finkin, M. W., ed., *The Case for Tenure*, Ithaca, N.Y.: ILR Press, 1996.

- Fitz-enz, J., *The ROI of Human Capital*, New York: American Management Association, 2000.
- Fowles, D. G., and S. Greenberg, *A Profile of Older Americans*, Washington, D.C.: U.S. Department of Health and Human Services, Administration on Aging, 2001.
- Frazier, L. M., A. L. Golbeck, et al., "Medically Recommended Cessation of Employment Among Pregnant Women in Georgia," *Obstetrics & Gynecology*, Vol. 97, No. 6, 2001, pp. 971–975.
- Fried, M., *Taking Time: Parental Leave Policy and Corporate Culture*, Philadelphia: Temple University Press, 1998.
- Friedman, D. E., E. Galinsky, and V. Plowden, *Parental Leave and Productivity*, New York: Families and Work Institute, 1992.
- Galambos, C., and A. Rosen, "The Aging Are Coming and They Are Us," *Health and Social Work*, Vol. 24, No. 1, 1999, pp. 73–77.
- Gjerdingen, D. K., and K. M. Chaloner, "The Relationship of Women's Postpartum Mental Health to Employment, Childbirth, and Social Support," *Journal of Family Practice*, Vol. 38, No. 5, 1994, pp. 468–476.
- Gjerdingen, D. K., D. G. Froberg, et al., "A Causal Model Describing the Relationship of Women's Postpartum Health to Social Support, Length of Leave, and Complications of Childbirth," *Women & Health*, Vol. 16, No. 2, 1990, pp. 71–87.
- Gjerdingen, D. K., D. G. Froberg, et al., "Changes in Women's Mental and Physical Health from Pregnancy Through Six Months Postpartum," *Journal of Family Practice*, Vol. 32, No. 2, 1991, pp. 161–167.
- Glass, J. L., and S. B. Estes, "Job Changes Following Childbirth," *Work and Occupations*, Vol. 23, No. 24, 1996, pp. 405–436.
- Glass, J., and S. B. Estes, "The Family Responsive Workplace," *Annual Review of Sociology*, Vol. 23, 1997, pp. 289–313.
- Glass, J. L., and L. Riley, "Family Responsive Policies and Employee Retention Following Childbirth," *Social Forces*, Vol. 76, No. 4, 1998, pp. 1401–1435.

- Googins, B. K., M. L. Griffin, and J. Casey, *Balancing Job and Home-life: Changes Over Time in a Corporation*, Boston: Boston University Center on Work and Family, 1994.
- Gottlieb, B. H., E. K. Kelloway, et al., "Aspects of Eldercare That Place Employees at Risk," *The Gerontologist*, Vol. 34, No. 6, 1994, pp. 815–821.
- Grundy, L., and N. Firestein, *Work, Family, and the Labor Movement*, Cambridge, Mass.: Radcliffe Public Policy Institute, 1997.
- Hewitt and Associates, *Work and Family Benefits Provided by Major U.S. Employers in 1996*, Lincolnshire, Ill., 1997.
- Hofferth, S. L., "Effects of Public and Private Policies on Working After Childbirth," *Work and Occupations*, Vol. 23, No. 4, 1996, pp. 378–404.
- Holtzman, M., and J. Glass, "Explaining Changes in Mothers' Job Satisfaction Following Childbirth," *Work and Occupations*, Vol. 26, No. 3, pp. 356–404.
- Hyde, J. S., "Women and Maternity Leave: Empirical Data and Public Policy," *Psychology of Women*, Vol. 19, No. 3, 1995, pp. 299–313.
- Hyde, J. S., M. J. Essex, et al., "Fathers and Parental Leave," *Journal of Family Issues*, Vol. 14, No. 4, 1993, pp. 616–641.
- Hyde, J. S., M. J. Essex, et al., "Parental Leave: Policy and Research," *Journal of Social Issues*, Vol. 52, No. 3, 1996, pp. 91–110.
- Izzo, J. B., and P. Withers, *Values Shift: The New Work Ethic and What It Means for Business*, FairWinds Press, 2001.
- Joesch, J. M., "Paid Leave and the Timing of Women's Employment Before and After Child Birth," *Journal of Family Issues*, Vol. 59, No. 4, 1997, pp. 1008–1021.
- Johnson, N. B., and K. G. Provan, "The Relationship Between Work/Family Benefits and Earnings: A Test of Competing Predictions," *Journal of Socio-Economics*, Vol. 24, No. 4, 1995, pp. 571–584.

- Kammerman, S. B., "Women's Health, Employment, and Child and Family Well Being," *Journal of the American Medical Women's Association*, Vol. 55, No. 2, 2000, pp. 96–99.
- Karner, T. X., "Caring for an Aging Society: Cohort Values and Elder-care Services," *Journal of Aging & Social Policy*, Vol. 13, No. 1, 2001, pp. 15–36.
- Kaufman, G., and P. Uhlenburg, "The Influence of Parenthood on the Work Effort of Married Men and Women," *Social Forces*, Vol. 78, No. 3, 2000, pp. 931–947.
- Kimball, B. A., "The Origin of the Sabbath and Its Legacy to the Modern Sabbatical," *Journal of Higher Education*, Vol. 49, No. 4, 1978, pp. 303–315.
- Klerman, J. A., and A. Leibowitz "The Work-Employment Distinction Among New Mothers," *Journal of Human Resources*, Vol. 29, No. 2, 1994, pp. 277–303.
- Klerman, J. A., and A. Leibowitz, "Job Continuity Among New Mothers," *Demography*, Vol. 36, No. 2, 1999, pp. 145–155.
- Krain, M. A., "Policy Implications for a Society Aging Well," *American Behavioral Scientist*, Vol. 39, No. 2, 1995, pp. 131–150.
- Kramer, D. C., *Workplace Sabbaticals: Bonus or Entitlement?* Westport, Conn.: Quorum Books, 2001.
- Kunze, A., "The Timing of Careers and Human Capital Depreciation," discussion paper 509 within the research area of Mobility and Flexibility of Labor of the Institute for the Study of Labor, Bonn, Germany, June 2002.
- Laroche, M., M. Mérette, and G. C. Ruggeri, *On the Concept and Dimensions of Human Capital in a Knowledge-Based Economy Context*, Department of Finance, Canada, Report 98-01, 1998.
- Leibig, P. S., "Factors Affecting the Development of Employer-Sponsored Elder-Care Programs," *Journal of Women and Aging*, Vol. 5, No. 1, pp. 59–78.

- Leibowitz, A., and J. A. Klerman, "Explaining Changes in Married Mothers' Employment Over Time," *Demography*, Vol. 32, No. 3, 1995, pp. 365–378.
- Leibowitz, A., J. A. Klerman et al., "Employment of New Mothers and Child Care Choice: Differences by Children's Age," *Journal of Human Resources*, Vol. 27, No. 1, 1992, pp. 112–133.
- Leuven, E., and H. Oosterbeek, "A New Approach to Estimate the Wage Returns to Work-Related Training," Discussion Paper No. 526, within the research area of Evaluation of Labor Market Policies and Projects of the Institute for the Study of Labor, Bonn, Germany, July 2002.
- Levy, C. M., H. J. Thie, et al., *How Other Organizations Manage Their Workforces: Insights for Future U.S. Enlisted Force Management*, RAND Corporation, unpublished, 1997.
- Lyness, K. S., C. A. Thompson, et al., "Work and Pregnancy: Individual and Organizational Factors Influencing Organizational Commitment, Timing of Maternity Leave, and Return to Work," *Sex Roles: A Journal of Research*, October 1999, pp. 485–503.
- McGovern, P., B. Dowd, et al., "The Determinants of Time Off Work After Childbirth," *Journal of Health Politics, Policy, and Law*, Vol. 25, No. 3, 2000, pp. 527–564.
- MetLife Mature Market Institute, *The MetLife Study of Employer Costs for Working Caregivers*, Westport, Conn., 1997.
- MetLife Mature Market Institute, *The MetLife Juggling Act Study*, Westport, Conn., 1999.
- MetLife Mature Market Institute, *The MetLife Study of Employed Caregivers: Does Long Term Care Insurance Make a Difference?* Westport, Conn., 2001.
- Moen, P., D. Harris-Abbot, S. Lee, and P. Roehling, *Promoting Workforce Effectiveness and Life Quality: Early Evidence from the Cornell Couples and Careers Study*, paper presented at an Economic Policy Institute symposium, June 15, 1999.

- National Alliance for Caregiving and the American Association of Retired Persons, *Family Caregiving in the U.S.: Findings from a National Survey*, Washington D.C., June 1997.
- National Institutes of Health, "PHS Foreign Work/Study Program Guidelines: 2000–2001 Guidelines," December 1999.
- National Institutes of Health, "Sabbaticals for NIH Scientists," at www1.od.nih.gov/oir/sourcebook/ir-communicatns/sabbaticals.htm (accessed August 2003).
- National Research Council, *The Changing Nature of Work*, Washington, D.C.: National Academy Press, 1999.
- Neal, M. B., and D. L. Wagner, *Working Caregivers: Issues, Challenges, and Opportunities for the Aging Network*, U.S. Administration on Aging, 2002.
- Office of Management and Budget *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, Circular A-94, October 29, 1999.
- Olmstead, B., and S. Smith, *Creating a Flexible Workplace: How to Select and Manage Alternative Work Options*, New York: American Management Association, 1994.
- Paul, P., "Time Out," *American Demographics*, June 2002, pp. 36–41.
- Persoff, A. M., *Sabbatical Years with Pay*, Los Angeles: Charter Publishing, 1945.
- Pitt-Catsoupes, M., *A Coming of Age: Work/Life and Flexibility*, Boston: Boston College Center for Work and Family Life, 1999.
- Ralston, J., "The State of Maternity Leave," *Parenting*, June/July 2002, pp. 122–129.
- Roe, B., L. A. Whittington, et al., "Is There Competition Between Breast-Feeding and Maternal Employment?" *Demography*, Vol. 36, No. 2, 1999, pp. 157–171.
- Rosenfeld, R. A. "Women's Work Histories," *Population and Development Review*, Vol. 22 (Supplement: *Fertility in the United States: Patterns and Theories*) 1996, pp. 192–222.

- Ruhm, C., "Policy Watch: The Family and Medical Leave Act," *Journal of Economic Perspectives*, Vol. 11, No. 3, 1997, pp. 175–186.
- Ruhm, C. J., and J. L. Teague, *Parental Leave Policies in North America*, Cambridge, Mass.: National Bureau of Economic Research, 1995.
- Sanchez, L., and E. Thompson, "Becoming Mothers and Fathers: Parenthood, Gender, and the Division of Labor," *Gender and Society*, Vol. 11, No. 6, 1997, pp. 747–772.
- Scharlach, A. E., and B. Grosswald, "The Family and Medical Leave Act of 1993," *Social Service Review*, Vol. 71, No. 3, 1997, pp. 335–360.
- Singleton, J., "Women Caring for Elderly Family Members: Shaping Non-Traditional Work and Family Initiatives," *Journal of Family Studies*, Vol. 31, No. 3, 2000.
- Smith, K. E., and A. Bachu, *Women's Labor Force Attachment Patterns and Maternity Leave: A Review of the Literature*, Washington, D.C.: U.S. Bureau of the Census, 1999.
- Smith, K., B. Downs, and M. O'Connell, "Maternity Leave and Employment Patterns: 1961–1995," in *Current Population Reports*, Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, 2001, pp. 70–79.
- Society of Human Resource Management (SHR), *2002 Benefits Survey*, Alexandria, Va., 2002.
- Thie, H. J., R. A. Brown, et al., *Future Career Management Systems for U.S. Military Officers*, Santa Monica, Calif.: RAND Corporation, MR-470-OSD, 1994.
- Trzcinski, E., and M. Finn-Stevenson, "A Response to Arguments Against Mandated Parental Leave: Findings from the Connecticut Survey of Parental Leave Policies," *Journal of Marriage and the Family*, Vol. 53, No. 2, 1991, pp. 445–460.
- Uhlenberg, P., "Populations Aging and Social Policy," *Annual Review of Sociology*, Vol. 8, 1992, pp. 449–474.

- U.S. Census Bureau, *The Foreign-Born Population in the United States*, U.S. Department of Commerce, Economics and Statistics Administration, 2000.
- U.S. Census Bureau, *A Profile of the Nation's Foreign-Born Population from Asia (2000 Update)*, U.S. Department of Commerce, Economics and Statistics Administration, 2002a.
- U.S. Census Bureau, *Coming from the Americas: A Profile of the Nation's Foreign-Born Population from Latin America (2000 Update)*, U.S. Department of Commerce, Economics and Statistics Administration, 2002b.
- U.S. Census Bureau, *Coming to America: A Profile of the Nation's Foreign Born (2000 Update)*, U.S. Department of Commerce, Economics and Statistics Administration, 2002c.
- U.S. Census Bureau, Population Division, "Table 8: Maternity Leave After the FMLA," 2001, at www.census.gov/population/www/documentation/twps0032/tab08.html (accessed August 2003).
- U.S. Code of Federal Regulations, Title 5, Part III, Subpart A, Chapter 21, Sec. 2105, "Employee."
- U.S. Code of Federal Regulations, Title 5, Part III, Subpart E, Chapter 63, Subchapter I, Sec. 6301, "Definitions."
- U.S. Code of Federal Regulations, Title 5: Administrative Personnel, Chapter 1: Office of Personnel Management, Part 410: Training—Table of Contents, 2001.
- U.S. Code of Federal Regulations, Title 5: Administrative Personnel, Chapter 1: Office of Personnel Management, Part 630: Absence and Leave—Table of Contents, 2001.
- U.S. Code of Federal Regulations, Title 10, Subtitle A, Part II, Chapter 40, Sec. 708, "Educational Leave of Absence."
- U.S. Commission on Family and Medical Leave, *A Workable Balance: Report to Congress on Family and Medical Leave Policies*, Washington, D.C.: Department of Labor, 1996.

- U.S. Department of Defense, *Profile of the Military Community: 2000 Demographics Report*, Arlington, Va.: Military Family Resource Center, 2000.
- U.S. Department of Defense, Deputy Assistant Secretary of Defense, *A New Social Compact: A Reciprocal Partnership Between the Department of Defense, Service Members and Families*, 2002.
- U.S. Department of Labor, *A Workable Balance: Report to Congress on Family and Medical Leave Policies*, 1996.
- U.S. General Accounting Office, *Overseas Benefits: Foreign Service Benefits and Allowances*, 1986.
- U.S. General Accounting Office, *Senior Executive Service: The Extent to Which SES Members Have Used the Sabbatical Program*, 1988.
- U.S. General Accounting Office, *National Science Foundation: External Assignments Under the Intergovernmental Personnel Act's Mobility Program*, GAO-01-1016, September 24, 2001.
- U.S. Office of Personnel Management, *Examples of Federal Agencies' Elder Care Programs*, 2000.
- U.S. Office of Personnel Management, *Report to Congress on Paid Parental Leave*, CPM 2001-11, November 21, 2001.
- Vaupel, J. W., "Demographic Analysis of Aging and Longevity," *American Economic Review*, Vol. 88, No. 2, 1998, pp. 242-247.
- Velkoff, V. A., and V. A. Lawson, *Gender and Aging Caregiving*, Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, 1998.
- Villanueva, A. B., "Review Essay: Population Aging and Retirement Issues in the Next Millennium," *Social Science Journal*, 2000, Vol. 37, No. 2, p. 321.
- Wagner, D. L., and G. G. Hunt, "The Use of Workplace Eldercare Programs by Employed Caregivers," *Research on Aging*, Vol. 16, No. 1, 1994, pp. 69-84.

- Waldfoegel, J., "The Impact of the Family and Medical Leave Act," *Journal of Policy Analysis and Management*, Vol. 18, No. 2, 1999, pp. 281–302.
- Waldfoegel, J., Y. Higuchi, et al., "Family Leave Policies and Women's Retention After Childbirth: Evidence from the United States, Britain, and Japan," *Journal of Population Economics*, Vol. 12, 1999, pp. 523–545.
- Walter, K., "Elder Care Obligations Challenge the Next Generation," *HR Magazine*, Vol. 41, 1996, pp. 98–100.
- Weiss, A. H., E. J. Gordon, et al., "Parental Leave: Comparing Children's Hospitals with Fortune 500 Companies," *Archives of Pediatrics & Adolescent Medicine*, Vol. 152, No. 7, 1998, pp. 629–634.
- Wever, K. S., *The Family and Medical Leave Act*, Cambridge, Mass.: Radcliffe Public Policy Institute, 1996.
- Wolf, D. A., and B. J. Soldo, "Married Women's Allocation of Time to Employment and Care of Elderly Parents," *Journal of Human Resources*, Vol. 29, No. 4, 1994, pp. 1259–1276.
- Yardley, R. J., H. J. Thie, K. Brancato, and M. Abbott, *An Analysis of Sabbatical Leaves for Navy Surface Warfare Officers*, Santa Monica, Calif.: RAND Corporation, DB-418-NAVY, forthcoming.